2009 Traffic Records Data Report

Louisiana

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Highway Safety Research Group

Summary

of the 2009 LOUISIANA TRAFFIC RECORDS DATA REPORT

- 729 fatal crashes
- 824 fatalities
- 73,856 injuries
- 109,793 property-damage-only crashes

Cost Comparison

2009

- $5.69* billion dollars to the citizens of Louisiana
- $1,991 for every licensed driver in Louisiana

2008

- $6.34* billion dollars to the citizens of Louisiana
- $2,233 for every licensed driver in Louisiana

$242 in savings per year for every licensed driver.

2008-2009 Comparison

2009-2008

- In 2009 there were 824 persons killed which *decreased by* 9.9% from 2008.
- In 200 there were 729 fatal crashes which *decreased by* 11.1% from 2008.
- In 2009 there were 1096 vehicles involved in fatal crashes which *decreased by* 9.8% from 2008.
- In 2009, Louisiana had 556 drivers killed in fatal crashes which *decreased by* 6.6% from 2008
- In 2009 there were 73,856 persons injured which *decreased by* 2.7% from 2008.
- In 2009 there were 45,335 injury crashes which *decreased by* 2.5% from 2008.

2008-2007

- In 2008 there were 915 persons killed which *decreased by* 8.2% from 2007.
- In 2008 there were 820 fatal crashes which *decreased by* 9.2% from 2007.
- In 2008 there were 1215 vehicles involved in fatal crashes which *decreased by* 11.2% from 2007.
- In 2008, Louisiana had 595 drivers killed in fatal crashes which *decreased by* 10.4% from 2007.
- In 2008 there were 75,883 persons injured which *decreased by* 3.8% from 2007
- In 2008 there were 46,487 injury crashes which *decreased by* 3.5% from 2007

Louisiana's 2009 Fatality Rates

2009-2008

- 1.84 deaths per 100 million miles traveled which *decreased* by 9.75% from 2008.
- 19.19 deaths per 100,000 population which *decreased* by 9.95% from 2008.
- 28.81 deaths per 100,000 licensed drivers which *decreased* by 10.21% from 2008.

2008-2007

- 2.0 deaths per 100 million miles traveled which *decreased by* 7.4% from 2007.
- 21.3 deaths per 100,000 population which *decreased by* 8.1% from 2007.
- 32 deaths per 100,000 licensed drivers which *decreased by* 8.5% from 2007.

Louisiana's 2009 injury rates

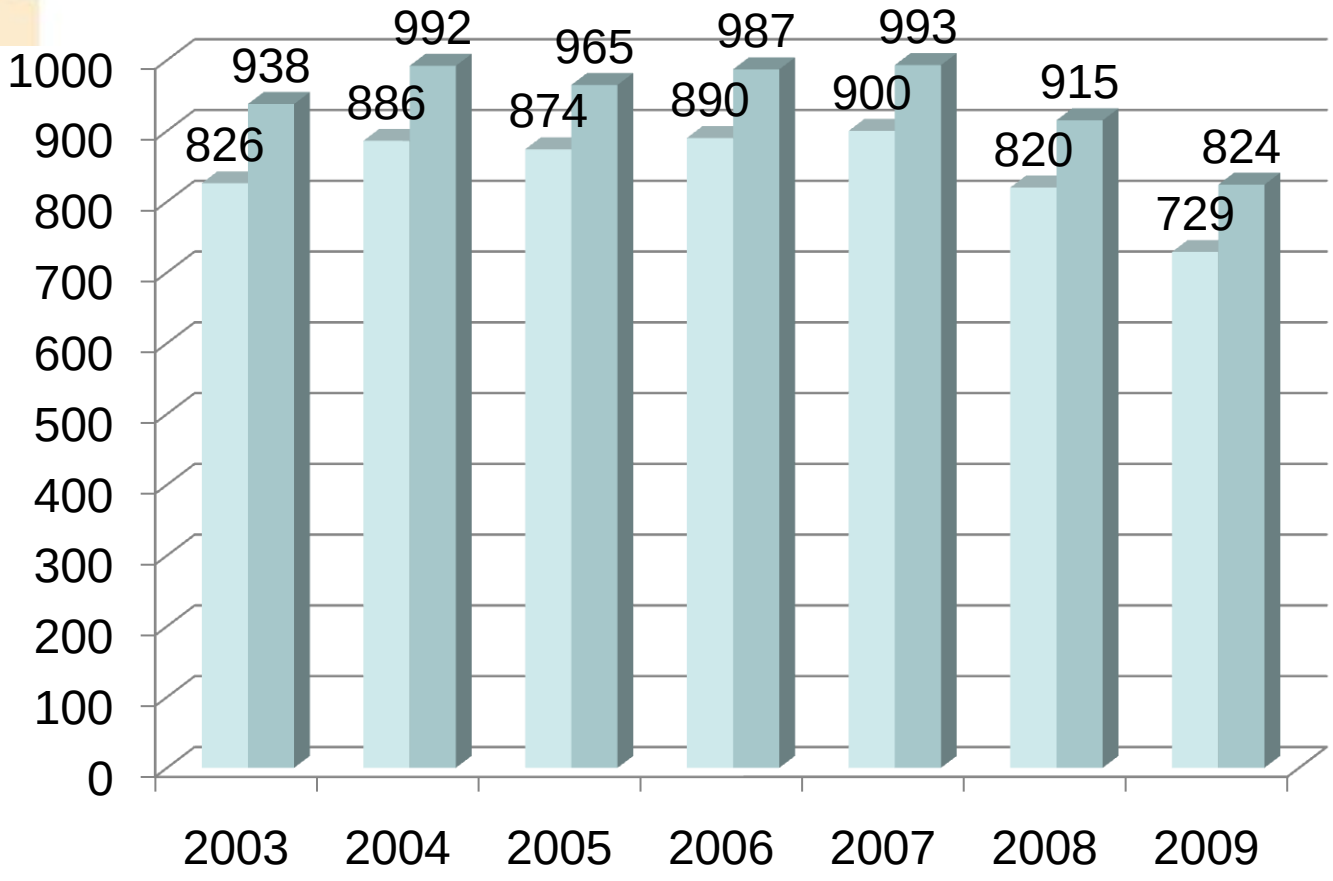
2009-2008

- 164.6 injuries per 100 million miles traveled which *decreased by* 2.5% from 2008
- 1,720 per 100,000 population which *decreased by* 3% from 2008.
- 2,583 injuries per 100,000 licensed drivers which *decreased by* 3% from 2008.

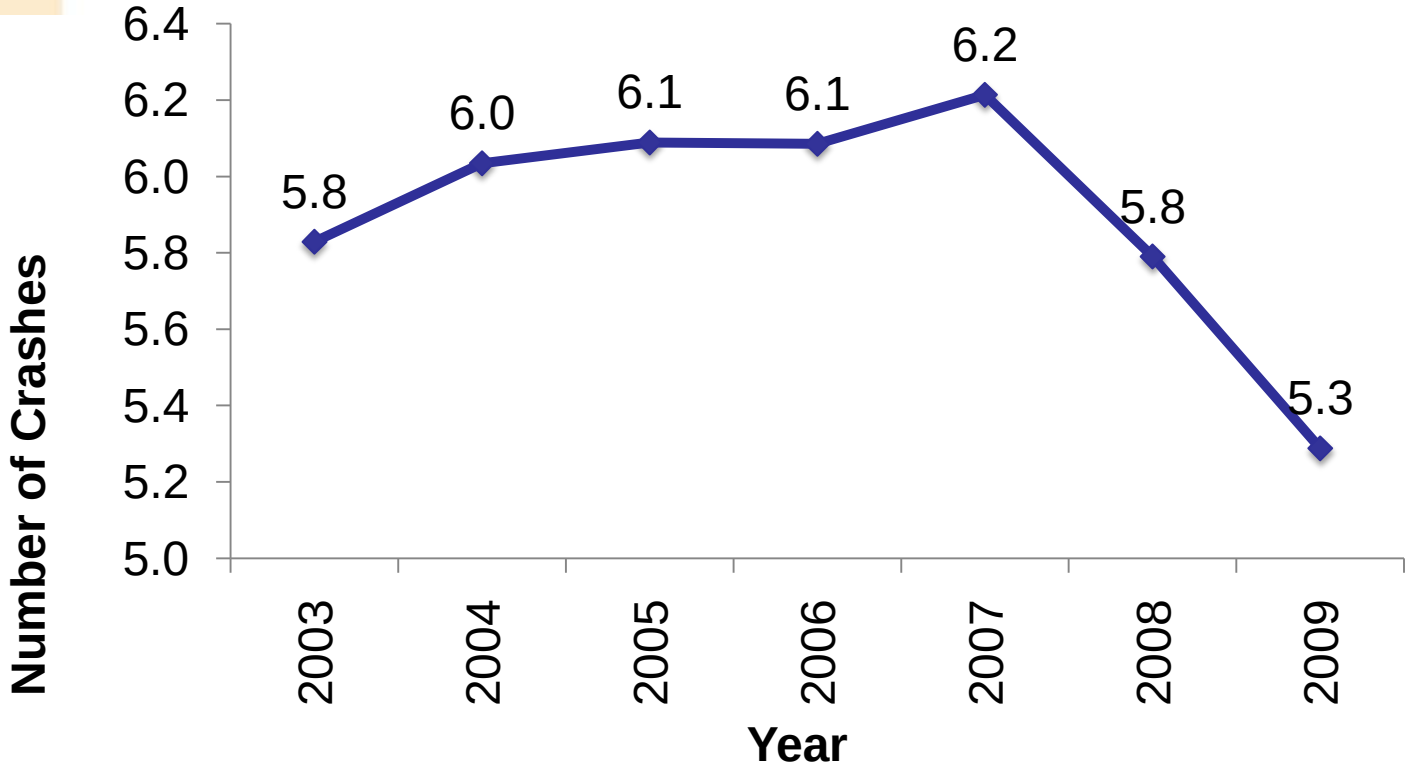
2008-2007

- 168 injuries per 100 million miles traveled which *decreased by* 3.2% from 2007.
- 1,768 per 100,000 population which *decreased by* 3.8% from 2007.
- 2,661 injuries per 100,000 licensed drivers which *decreased by* 4.3% from 2007.

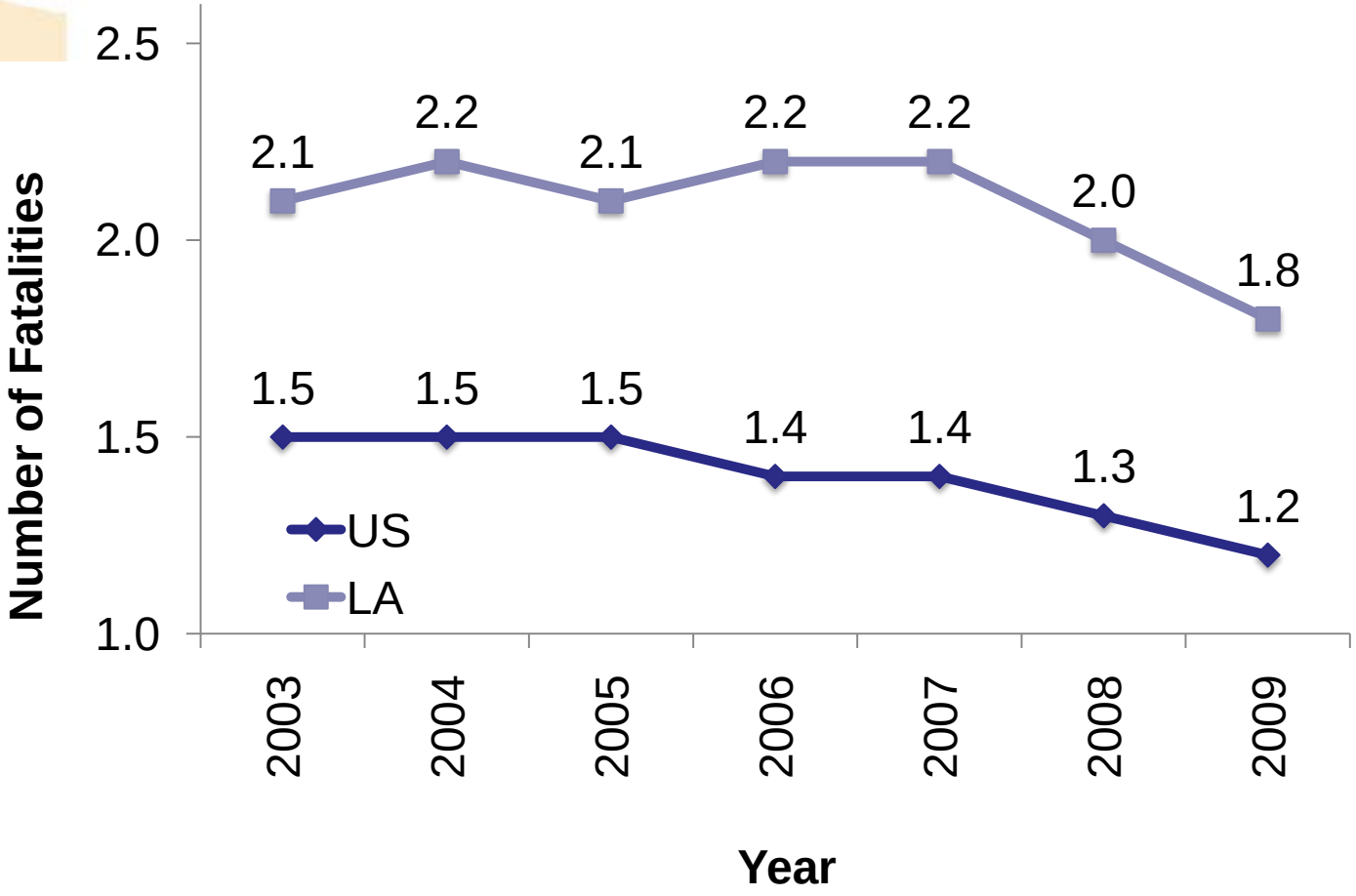
Fatalities and Fatal Crashes have declined significantly in 2009 for the second year in a row



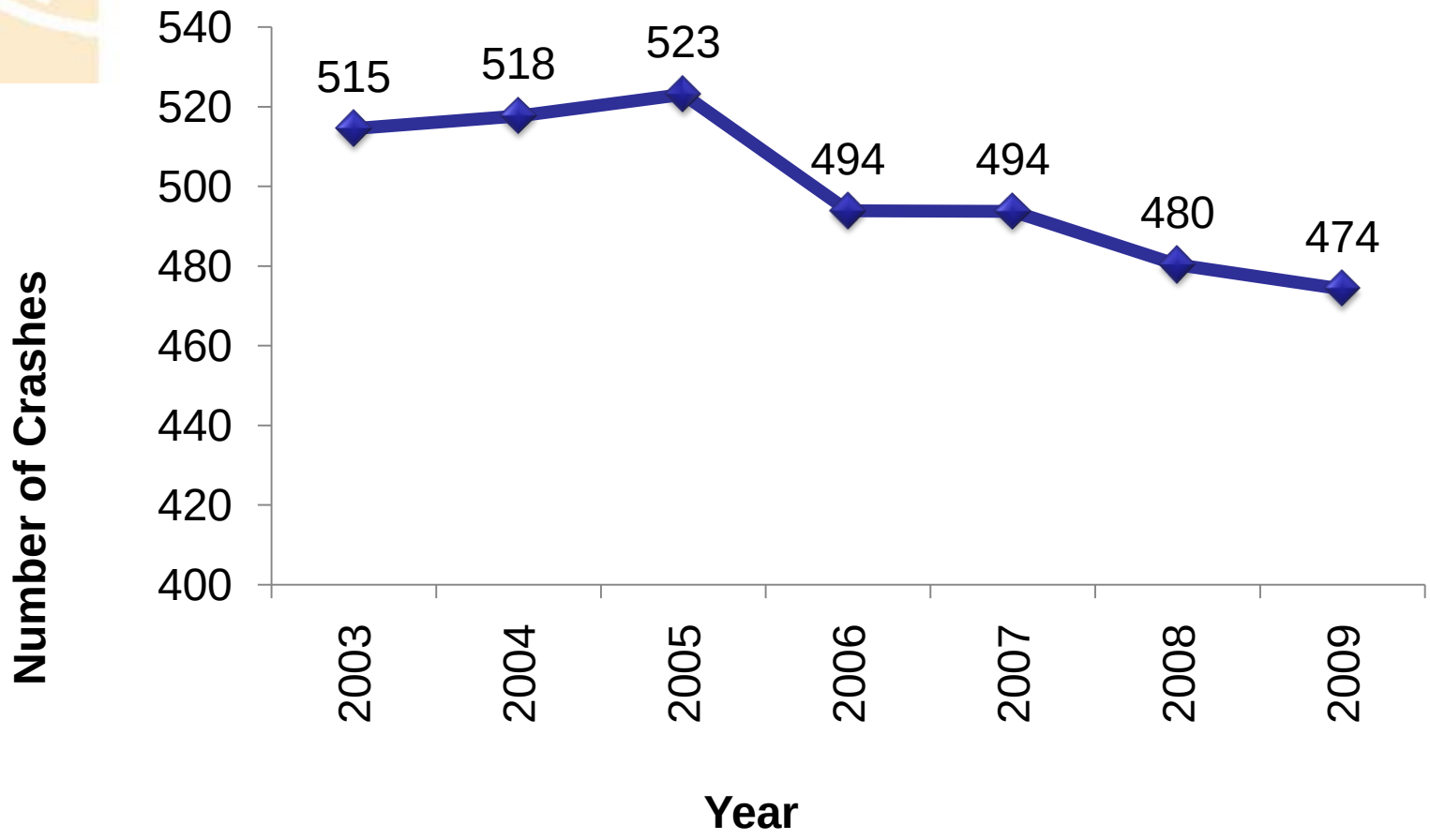
Fatalities per 1,000 Crashes



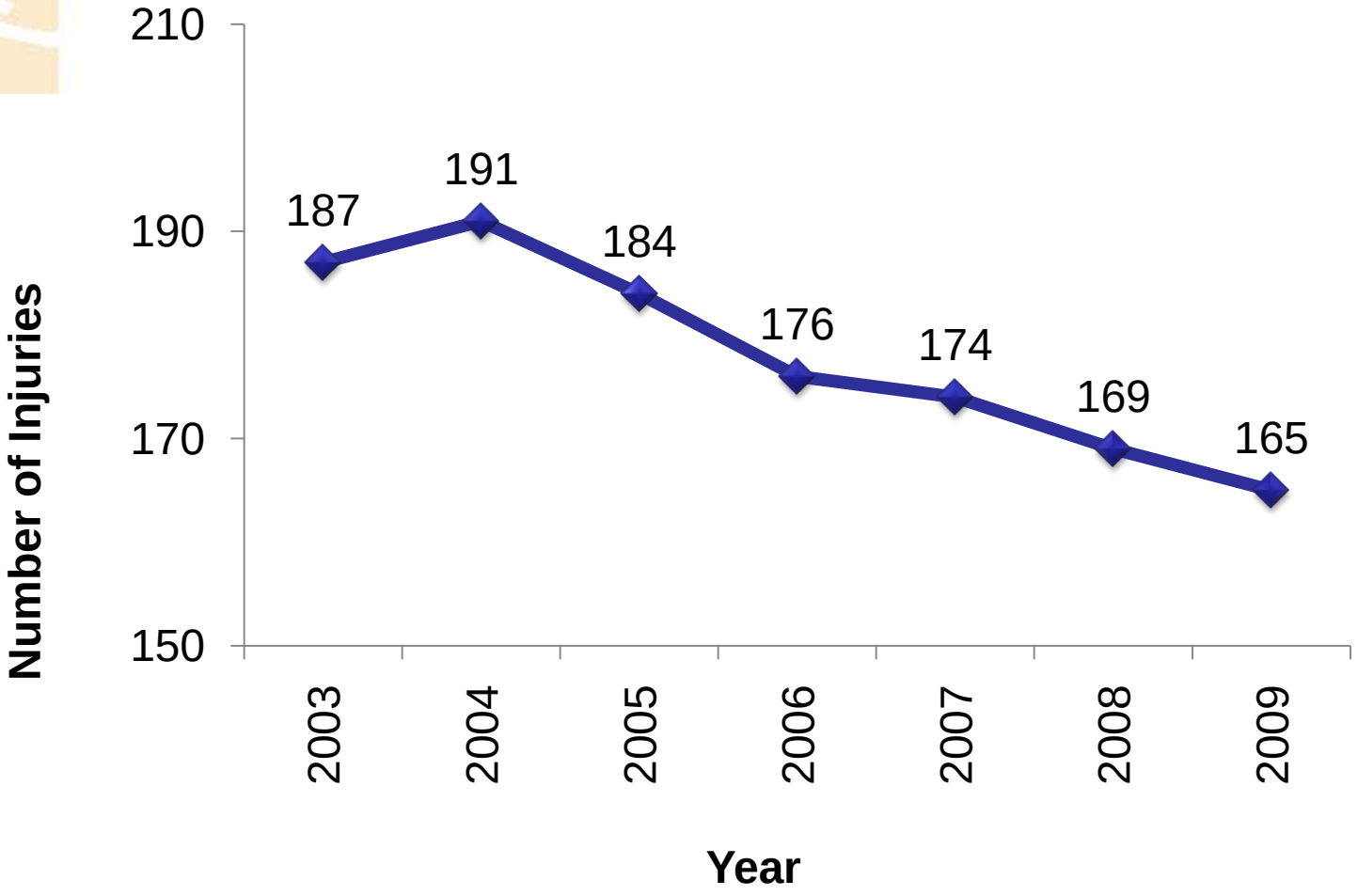
Fatalities per 100 Million Miles



Injuries per 1,000 Crashes



Injuries per 100 Million Miles



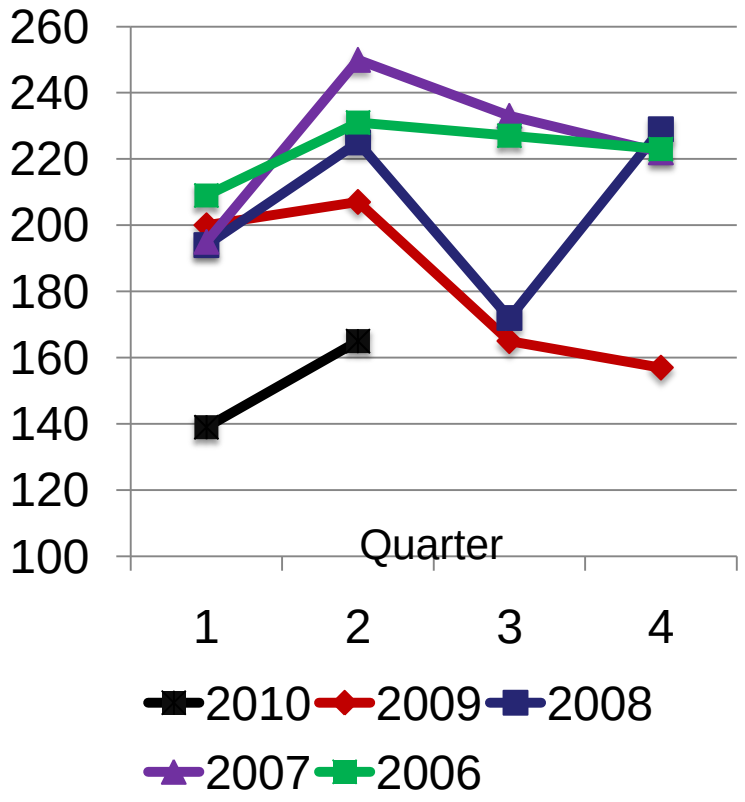
Average Decline from 2008 to 2009 and 2007 to 2009

- Overall fatalities *decreased by*
  - 9.9% from 2008 and
  - 17% from 2007

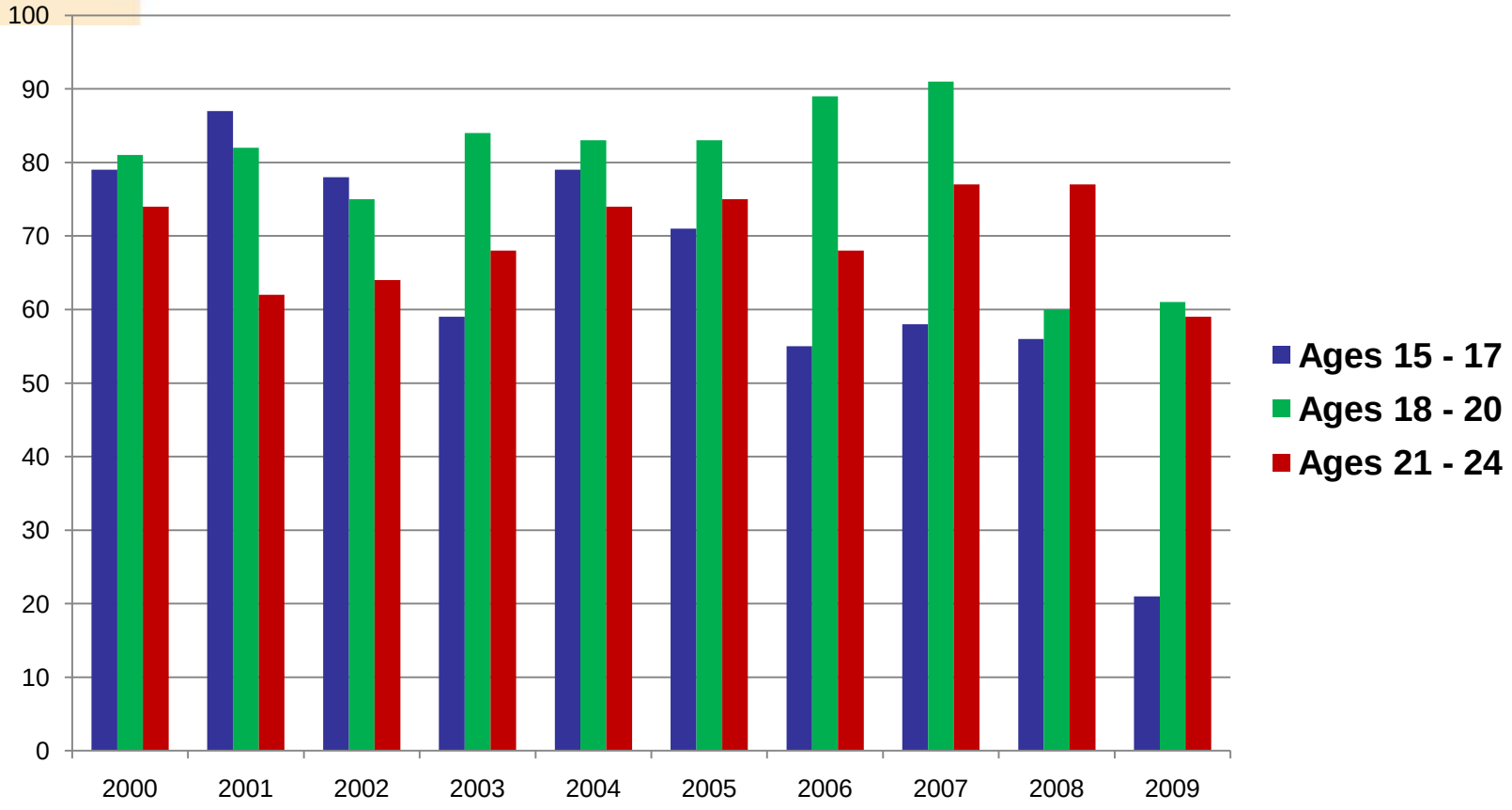
- Fatal crashes *decreased by*
  - 11.1% from 2008 and
  - 19% from 2007

2010 Predictions

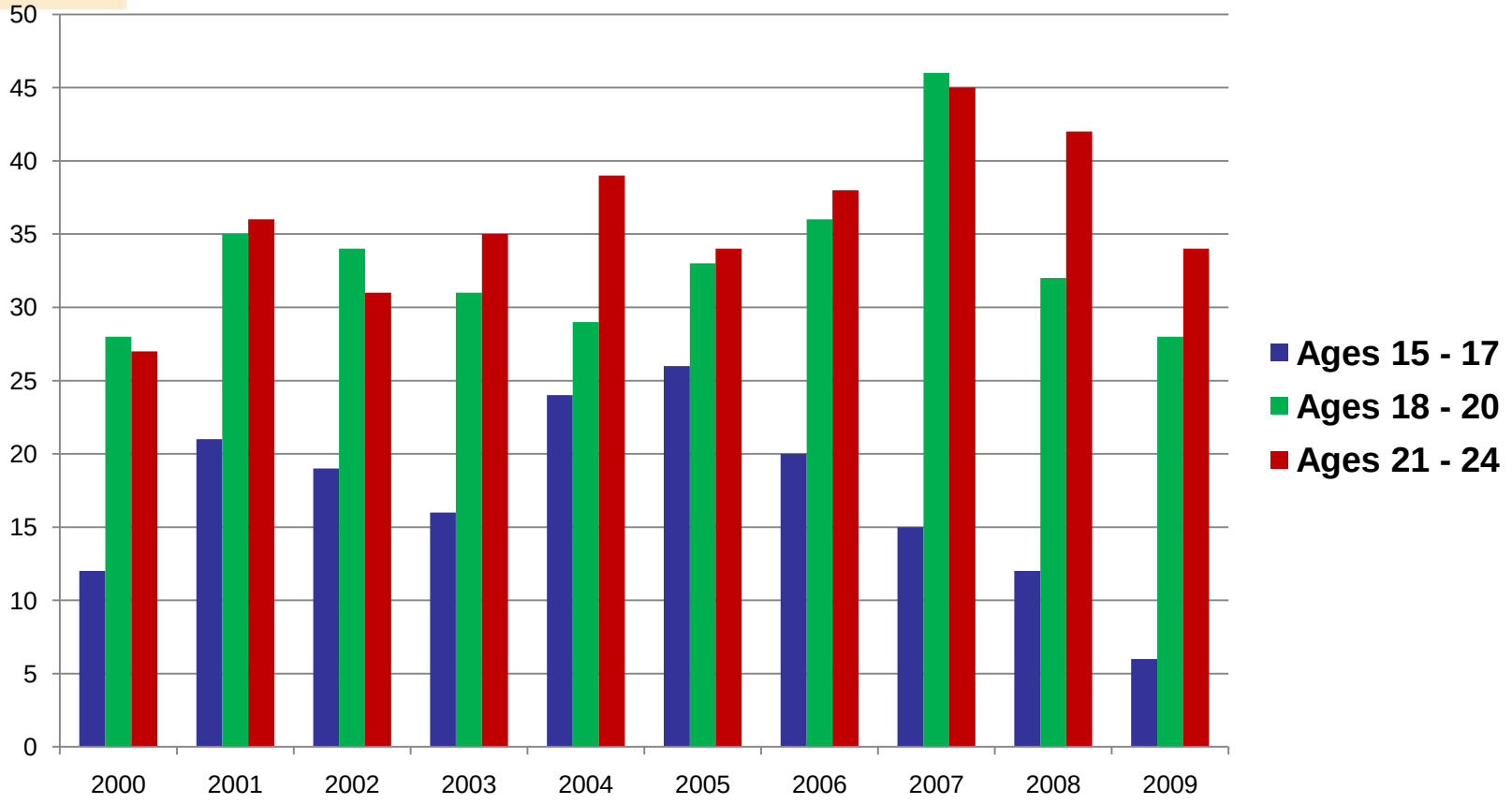
- The fatalities in 2010 are predicted to continue to decline slightly.



Fatal Crash Rate of Youths Drivers Declined



Injury Crash Rate of Youths Drivers Declined



Parish Size and Decline of Fatal Crashes

Licensed Drivers	2009-2008		2008-2007		2009-2007	
	%	Diff	%	Diff	%	Diff
100,000+	-5%	-11	-14%	-42	-16%	-53
50,000-100,000	-16%	-31	3%	0	-13%	-31
20,000-50,000	-14%	-33	-8%	-4	-18%	-37
10,000-20,000	-13%	-8	-10%	-9	-13%	-17
<10,000	-12%	-8	-24%	-23	-38%	-31

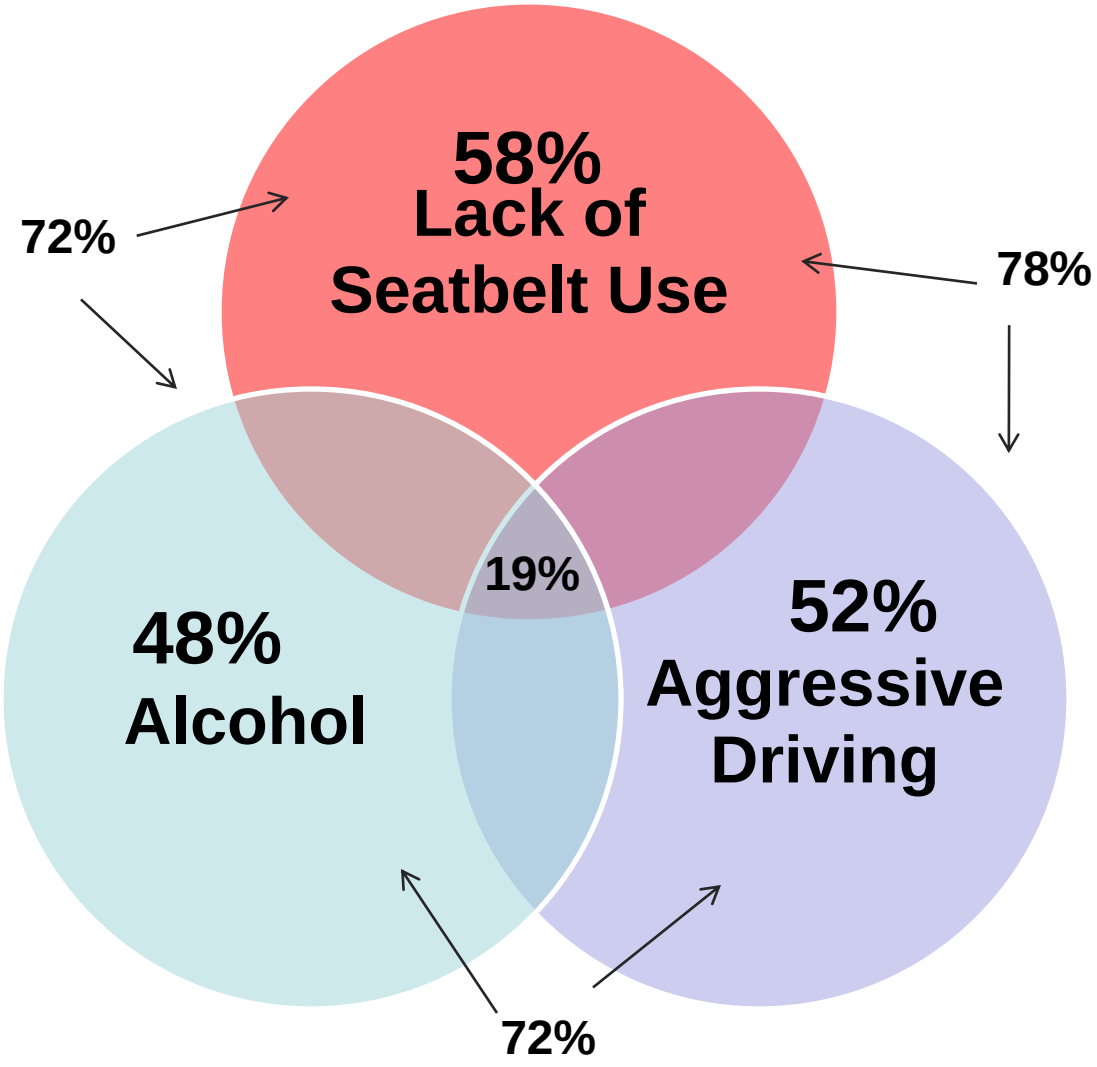
Pareto: The 20-80 Rule

80% of the **Problems**
come from
20% of the **Causes**

Separate the Vital Few from the Trivial Many

Vilfredo Pareto, 1848-1923

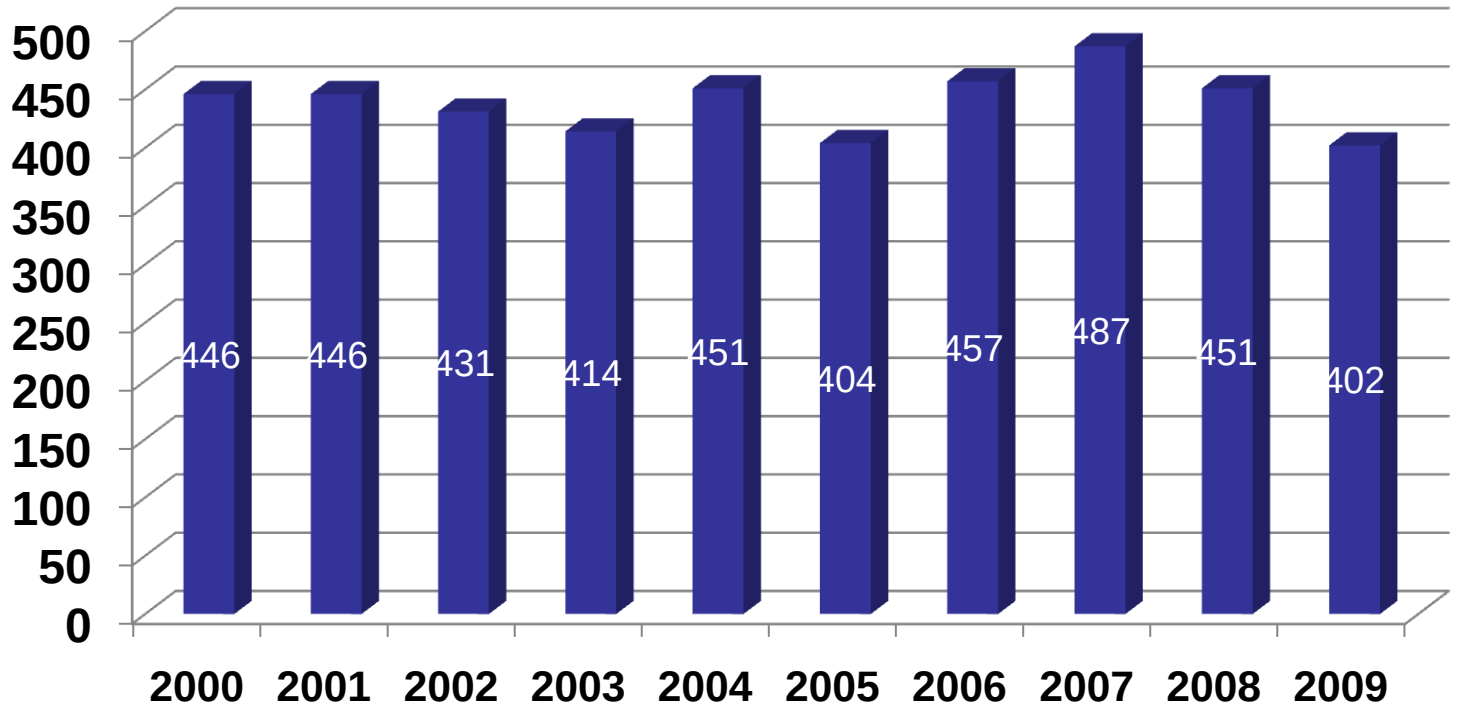
Over 84% of driver fatalities involved one of these three factors of the driver killed.



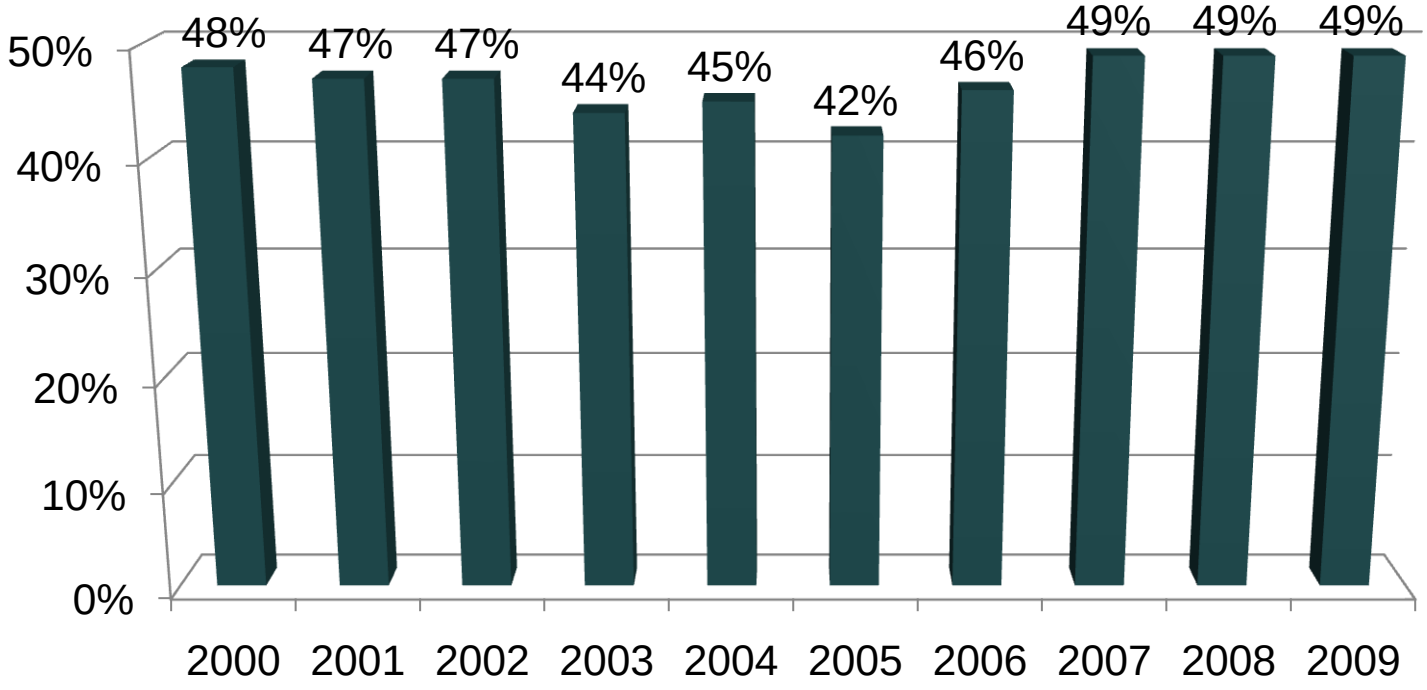
ALCOHOL & CRASHES

- In 2009, 353 fatal crashes with 402 fatalities were estimated to be alcohol related which *decreased by* 11.5% and 10.9%, respectively from 2008.
- In 2009, 4,111 injury crashes (9.1%) were estimated to be alcohol related which *decreased by* 3.8% from 2008.
- In 2008, 4745 PDO crashes (4.3%) were estimated to be alcohol related which *decreased by* .1% from 2008.
- However, the percentage of alcohol related crashes in 2009 dropped from 49% in 2008 to 48% in 2009.
-

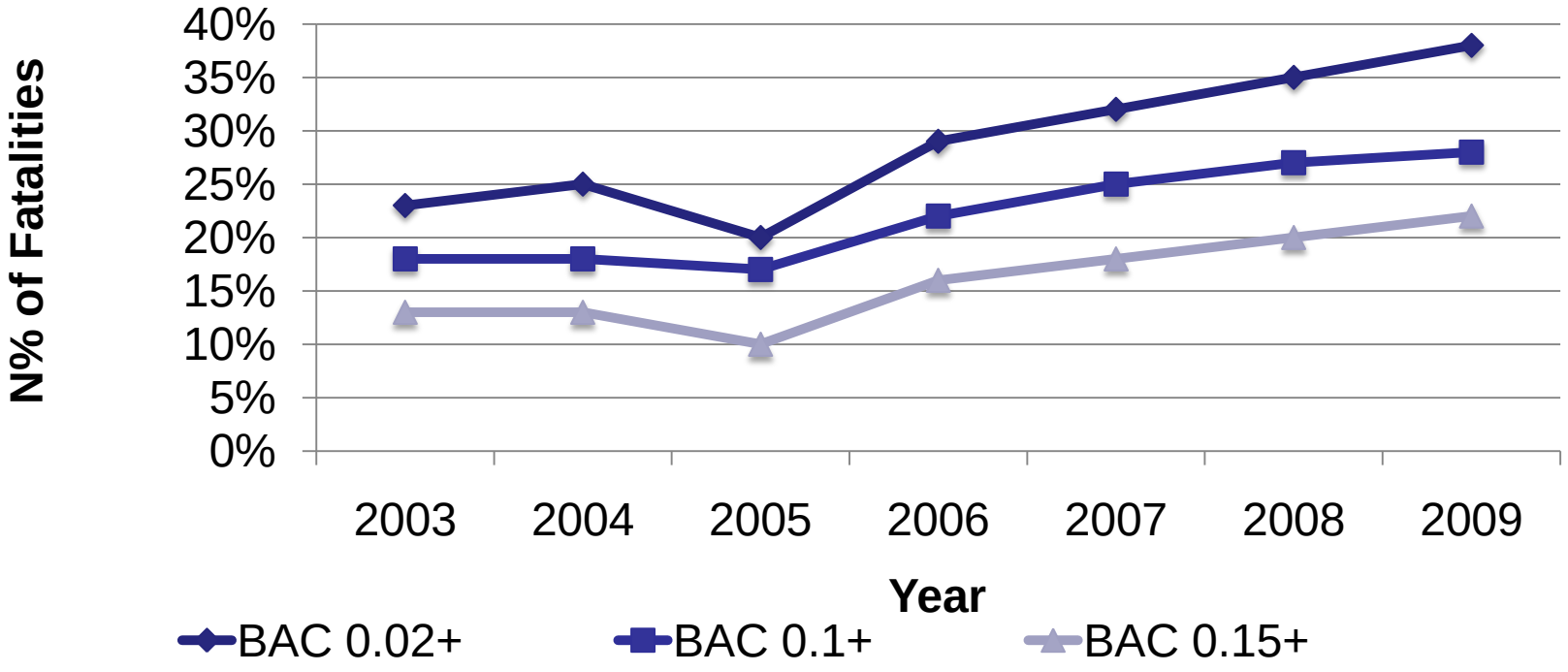
Alcohol-Related Fatalities have decreased since 2007.



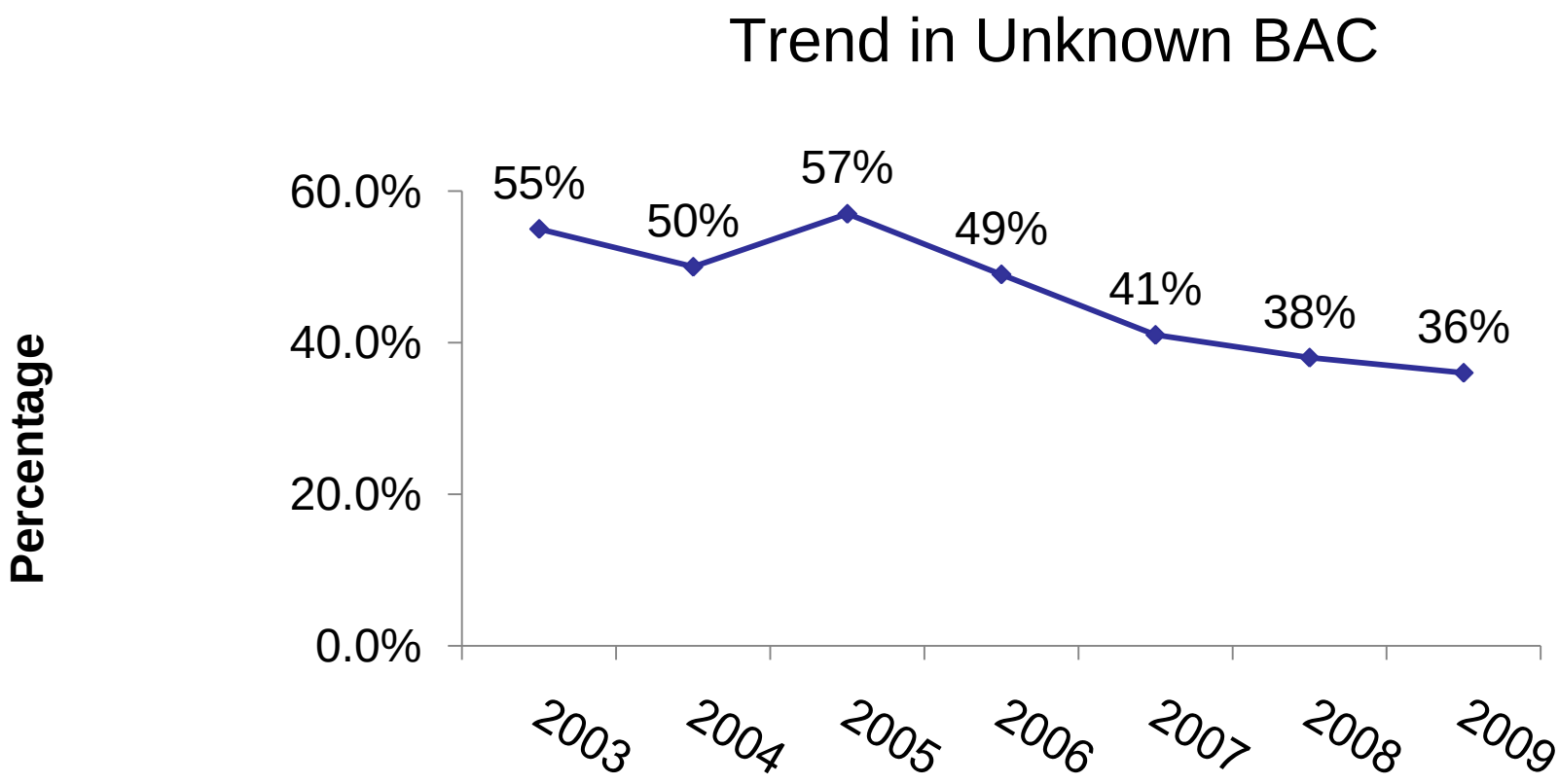
Percentage Alcohol-Related Fatalities have been steady at 49% over the past three years…



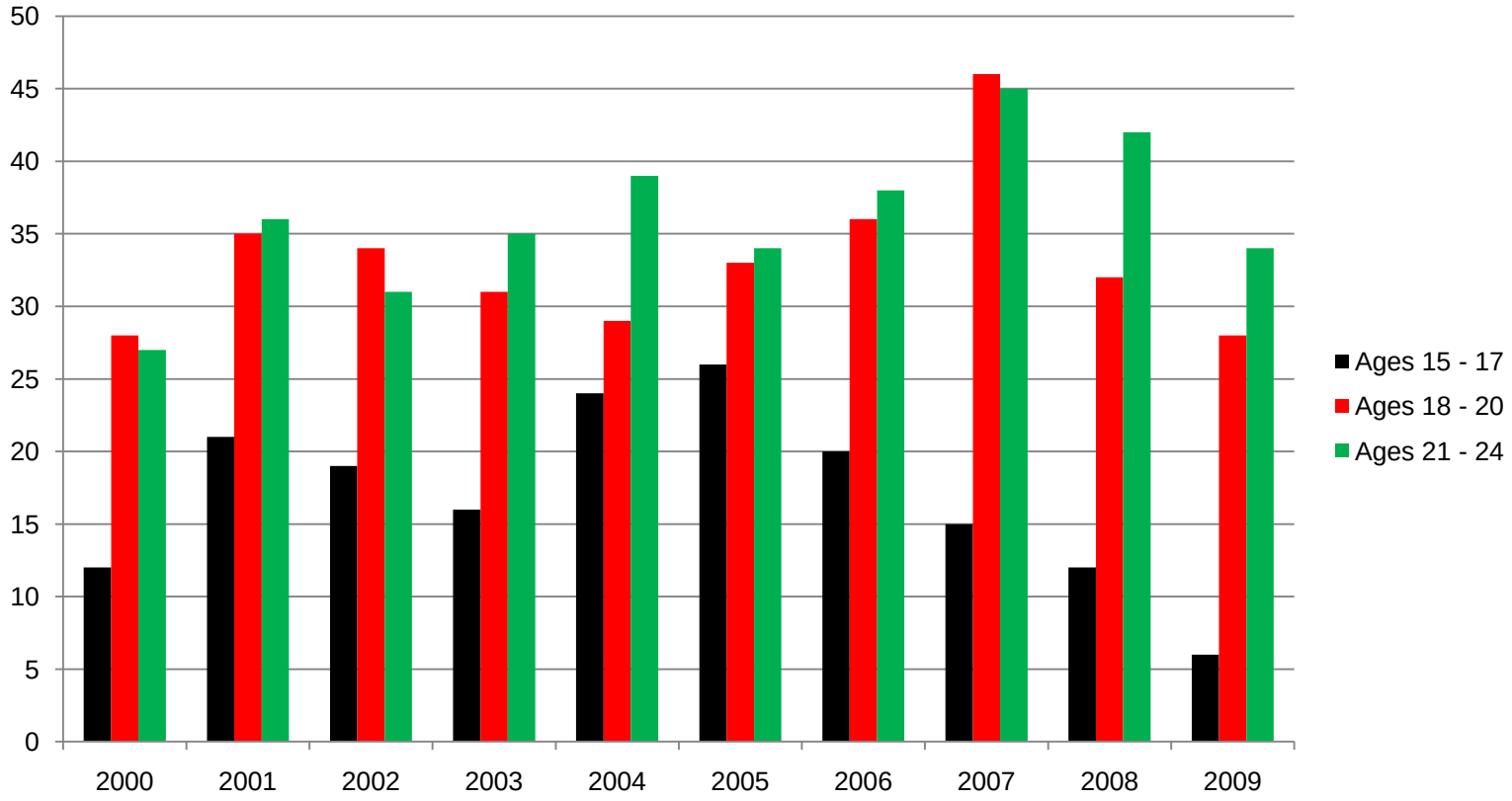
...and BAC levels have been increasing but….



...this may be due to better reporting



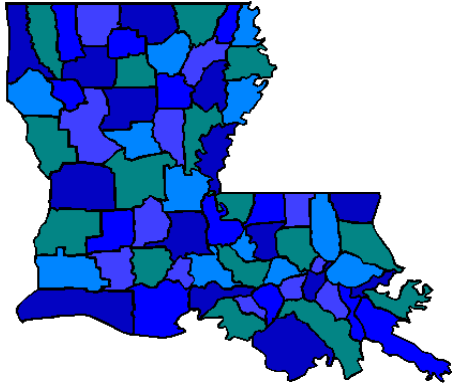
Trend in youth alcohol-related fatal crashes shows a steady decline over the past two years



Reflections How to Reduce Alcohol-related Crashes

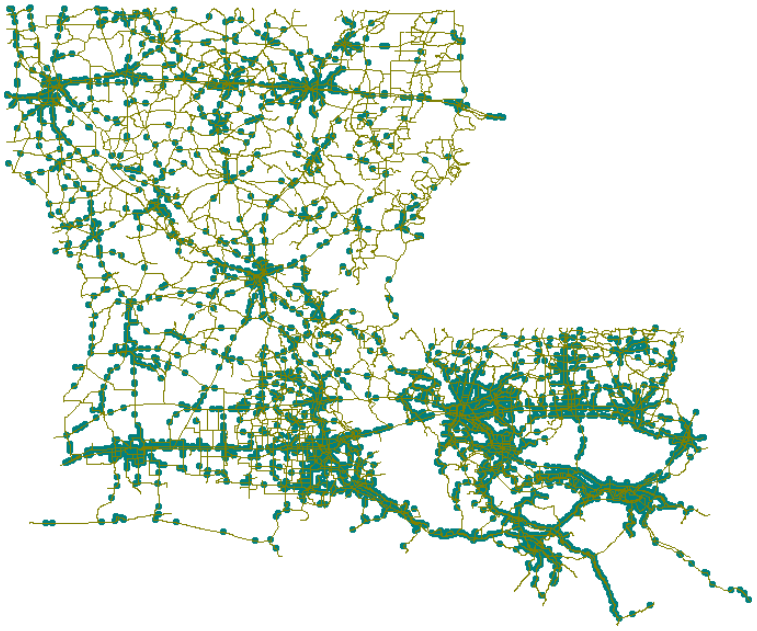
- Year-to year data exhibit large variations
- Designed studies are helpful to block out variation

Target of Opportunity Designed Study Findings from 2001



- The “Targets of Opportunity” project was successful
  - Alcohol-related fatalities were reduced by 14.8% in 16 parishes
  - The percentage of alcohol-related fatalities were reduced
    - by 5 percentage points in the 16 parishes (47.6%-42.3%)
  - 49 lives were saved in the first 12 months of the project.
  - For every 1,000 hours of saturation patrol 4 lives are saved.
  - For every 100 SFST 3 lives are saved.

Findings
Of the Target of Opportunities Project from 2001



- Enforcement is essential
- South versus north Louisiana
- Casual versus heavy drinkers (97% of DUI in fatal crashes are without arrest in the past 3 years)
- Youth (<24) versus adult drivers : Youth drivers respond more to enforcement
- Evening versus late night-early morning: Early evening returning drivers respond more to enforcement
- Repeat offenders respond less to enforcement

2009-2008 DWI Arrests

2008

- 24,736 Arrests
- 22,478 Adult DWI Arrest
- 7,947 Refusals
- 1,637 Age 15-20 DWI

2009

- 31,970 Arrests
- 29,164 Adult DWI Arrest
- 8,858 Refusals
- 2,806 Age 15-20 DWI

DWI Arrests by Troop

Troop	Arrests 2009	Arrests 2008	% Change arrests
A	2186	1685	30%
B	1672	990	69%
C	1546	892	73%
D	1413	871	62%
E	1022	771	33%
F	1015	796	28%
G	1072	1119	-4%
I	1895	1333	42%
L	2304	2158	7%
Total LA	31639	24450	29%

Using Bayes Theorem to Profile of DUI Drivers

What is the probability that a fatal crash happening between 12 am and 3 am with a male driver age 18-25 is alcohol-related?

Using Bayes Theorem to Profile of DUI Drivers

What is the probability that a fatal crash happening between 12 am and 3 am with a male driver age 18-25 is alcohol-related?

Answer: 85%

Using Bayes Theorem to Profile of DUI Drivers

What is the probability that a fatal crash happening between 12 am and 3 am with a male driver age 18-25 not wearing a seat belt is alcohol-related?

Using Bayes Theorem to Profile of DUI Drivers

What is the probability that a fatal crash happening between 12 am and 3 am with a male driver age 18-25 not wearing a seat belt is alcohol-related?

Answer: 95%

Using Bayes Theorem to Profile of DUI Drivers

What is the probability that a fatal crash happening between 12 am and 3 am with a driver not wearing a seat belt is alcohol-related?

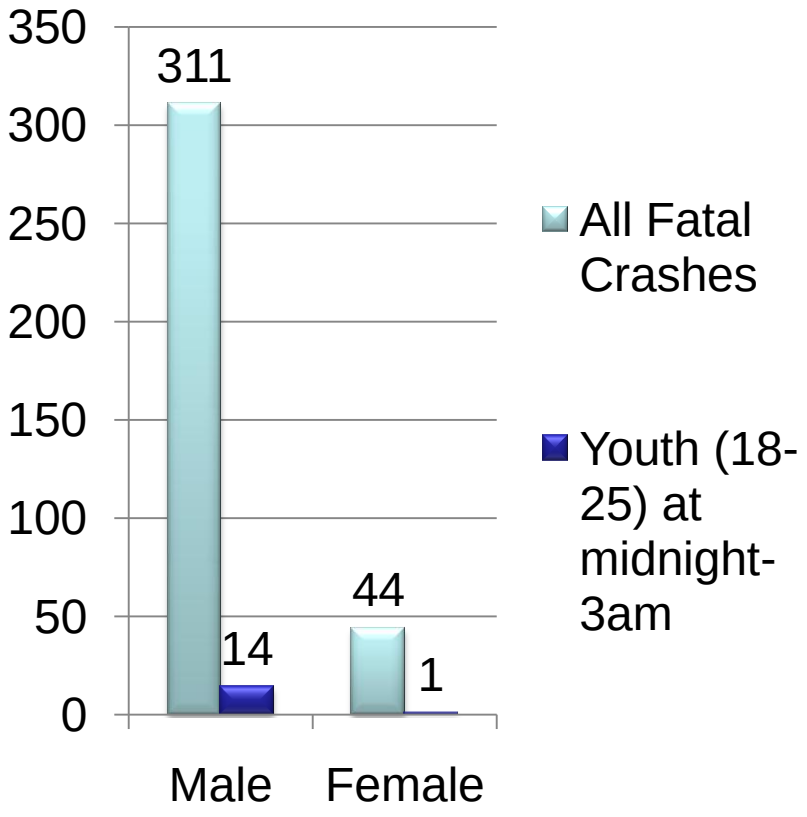
Using Bayes Theorem to Profile of DUI Drivers

What is the probability that a fatal crash happening between 12 am and 3 am with a driver not wearing a seat belt is alcohol-related?

Answer: 83%

Male versus Female

- Drivers in alcohol-related crashes are still predominantly male



Alcohol, Seat Belt and Gender

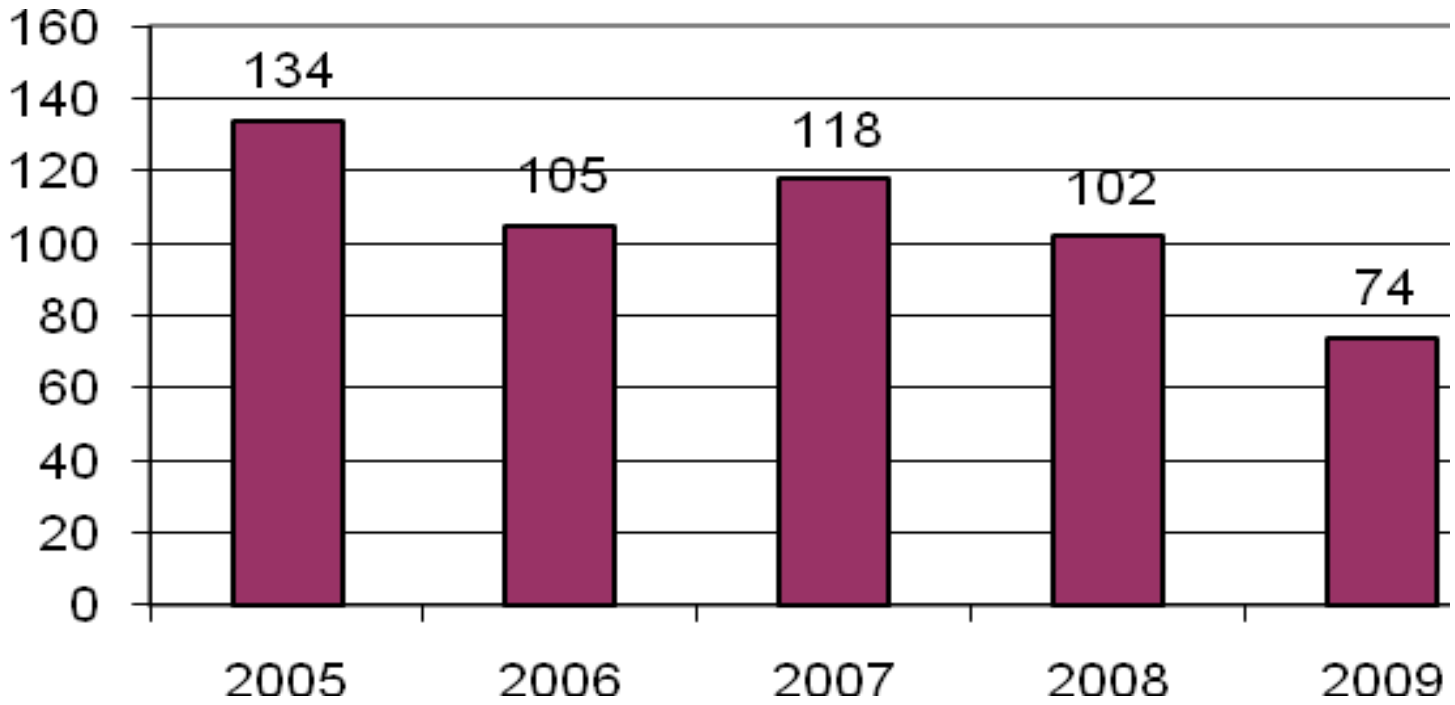
- Not wearing a seat belt at night is an indicator of driving under the influence
- Drivers in alcohol-related fatal crashes are likely to be male
- Night time seat-belt enforcement is an effective way to reduce DUIs

Commercial Vehicle Crashes

CMV

	Year	2005	2006	2007	2008	2009	1-Year % Change	5-Year % Change
CMV Crashes	Fatal	134	105	118	102	74	-27%	-45%
	Injury	2197	1922	2120	1950	1596	-18%	-27%
	PDO	2171	2093	2110	2115	1816	-14%	-16%
	Total CMV	4502	4120	4348	4167	3486	-16%	-23%
% CMV	Fatal	12%	12%	13%	12%	10%	-2.2%	-1.9%
	Injury	4.4%	3.9%	4.4%	4.2%	3.6%	-0.6%	-0.8%
	PDO	2.0%	1.9%	1.9%	1.9%	1.7%	-0.2%	-0.3%
	Total	2.8%	2.5%	2.7%	2.6%	2.3%	-0.3%	-0.5%

Fatal CMV Crashes were close to cut in half over the past 5 years



Violations as % of Drivers

	FATAL CRASHES		TOTAL CRASHES	
Year	Truck Driver	Passenger Car Driver	Truck Driver	Passenger Car Driver
2004	34%	54%	52%	52%
2005	31%	47%	49%	47%
2006	32%	66%	49%	52%
2007	35%	68%	47%	54%
2008	32%	78%	48%	53%
2009	27%	66%	49%	51%

Percentage of Violations of Truck versus other Car Driver

	FATAL CRASHES		TOTAL CRASHES	
Year	Truck Driver	Passenger Car Driver	Truck Driver	Passenger Car Driver
2004	36%	64%	54%	46%
2005	37%	63%	39%	61%
2006	30%	70%	51%	49%
2007	38%	62%	50%	50%
2008	33%	67%	50%	50%
2009	29%	71%	51%	49%

Manner of Collision in Fatal Crashes

CMV

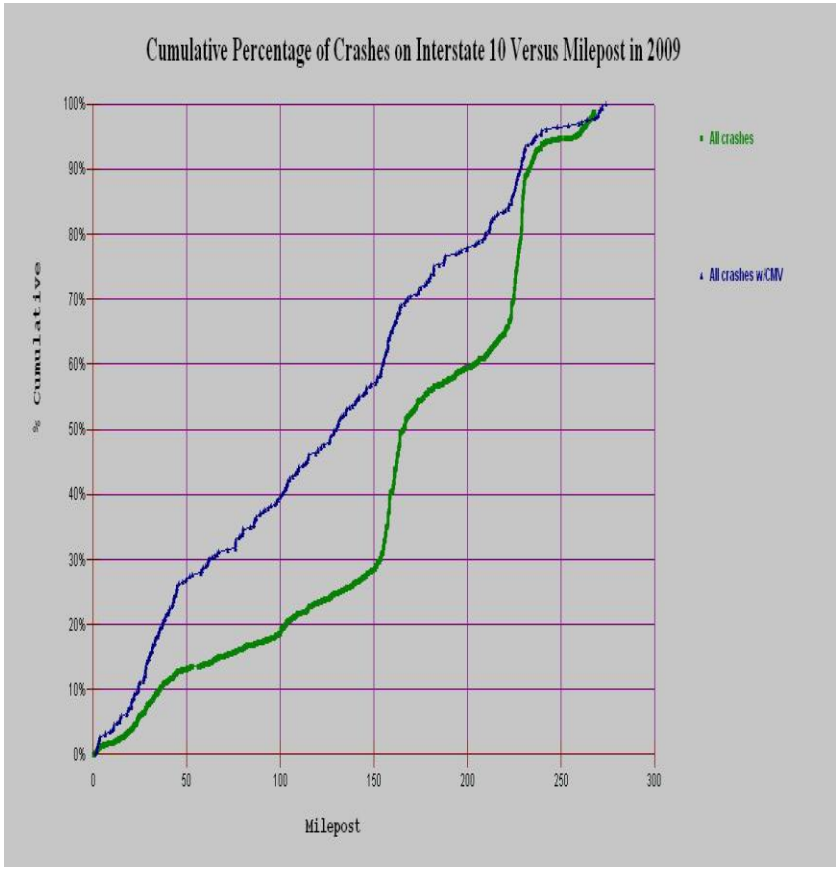
- Head on 26%
- Rear end 27%
- Right angle 19%
- Non collision 7%

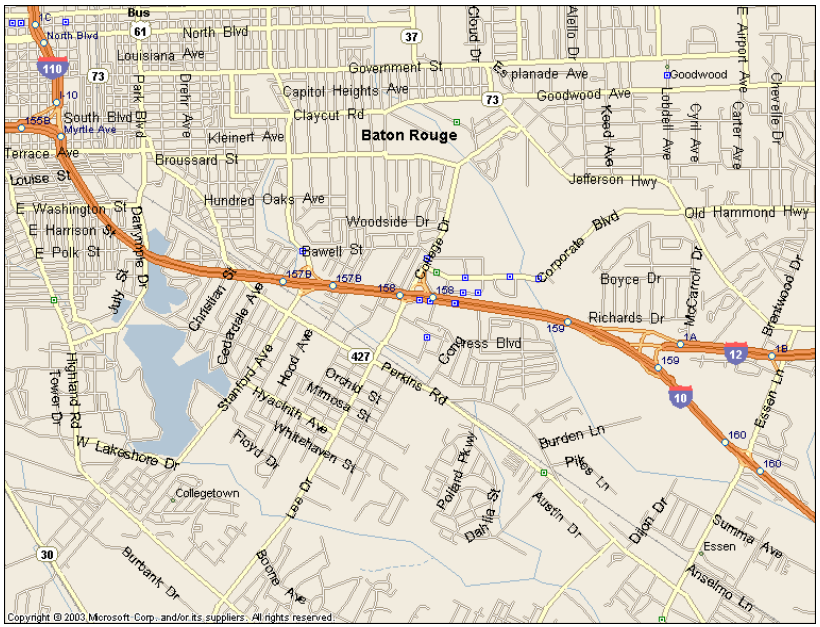
All Crashes

- Head on 12%
- Rear end 7%
- Right angle 10%
- Non collision 54%

Interstate 10

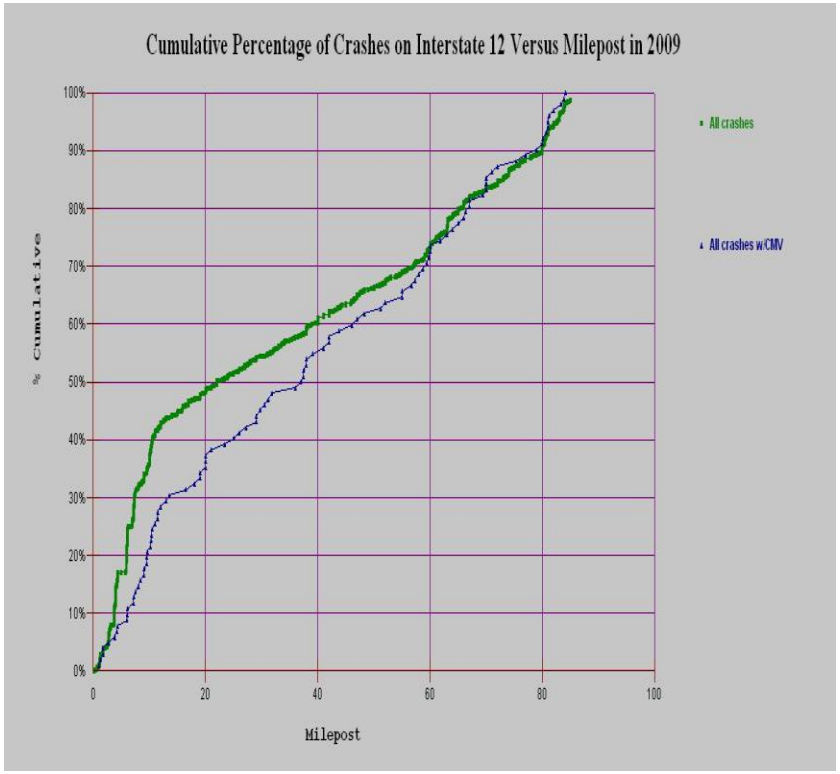
While Interstate 10 has a high frequency of crashes at the I10/12 split, CMV crashes have a higher frequency within the first 10 miles of the Texas border.

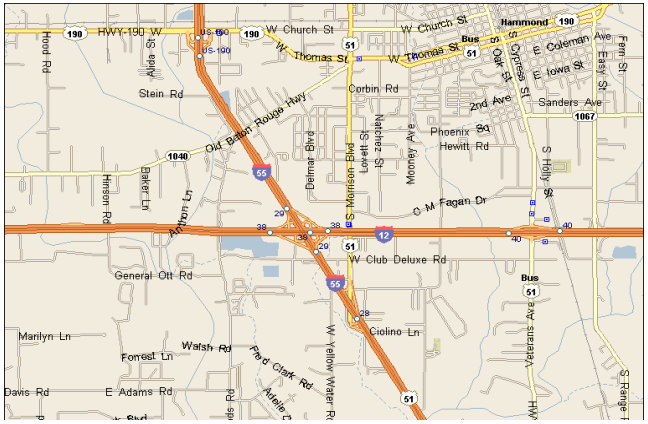


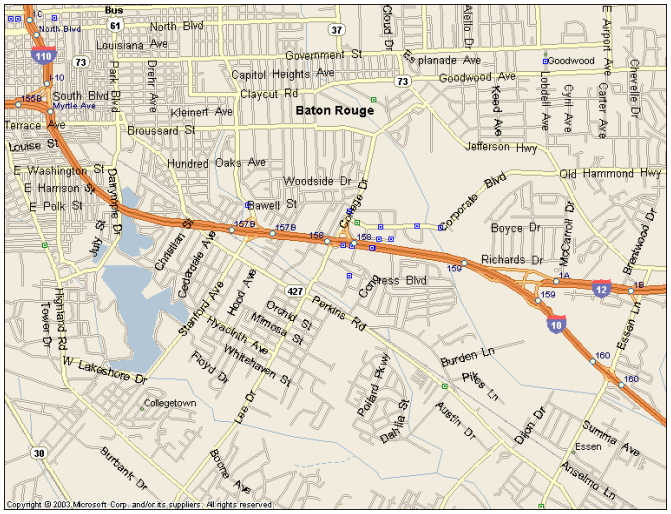


Interstate 12

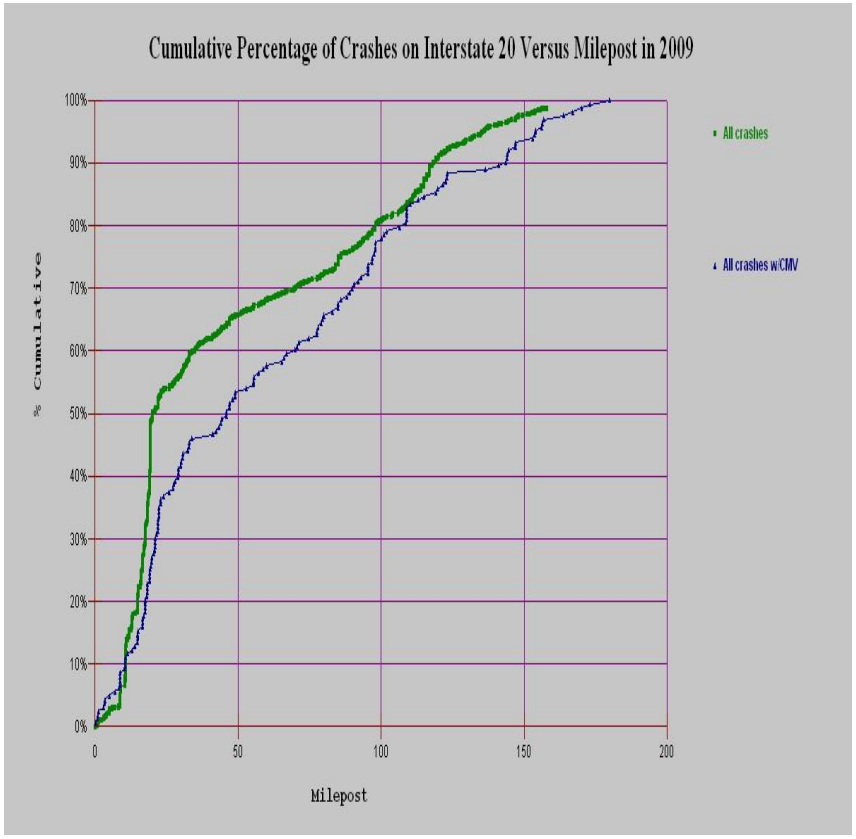
I 12 has a relative high frequency of crashes for both CMV and non-CMV crashes within the first 10 miles.



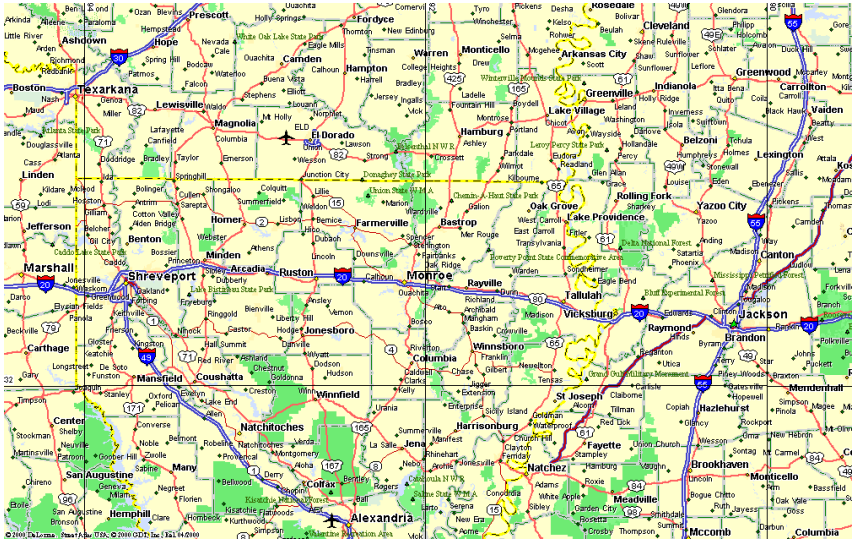




Interstate 20



The first 25 miles of interstate are clearly the trouble spots.



CMV Crashes in Construction Zones

		2009				2008			
		FATAL	INJURY	PDO	ALL	FATAL	INJURY	PDO	ALL
ALL CMV CRASHES ON INTERSTATES	Count	22	350	503	875	26	476	631	1133
	PER 100,000 Day-MILES	6.7	107	154	268	8.0	146	193	347
CONSTRUCTION ZONES	Count	10	90	131	231	6	121	132	259
	PER 100,000 Day-MILES	18.7	168	244	431	14.7	297	324	636
WITHIN 5 MILES OF CONSTRUCTION ZONES	Count	18	193	263	474	14	255	298	567
	PER 100,000 Day-MILES	10.9	117	159	287	10.6	194	226	430
IN 5 MILES OUTSIDE CONSTRUCTION ZONE	Count	8	103	132	243	8	134	166	308
	PER 100,000 Day-MILES	7.2	92	118	218	8.8	147	182	338

Hazardous Materials

Year	Transport	Released	% Released
2002	96	19	20%
2003	82	13	16%
2004	58	15	26%
2005	86	15	17%
2006	102	19	19%
2007	127	20	16%
2008	94	16	17%
2009	102	19	19%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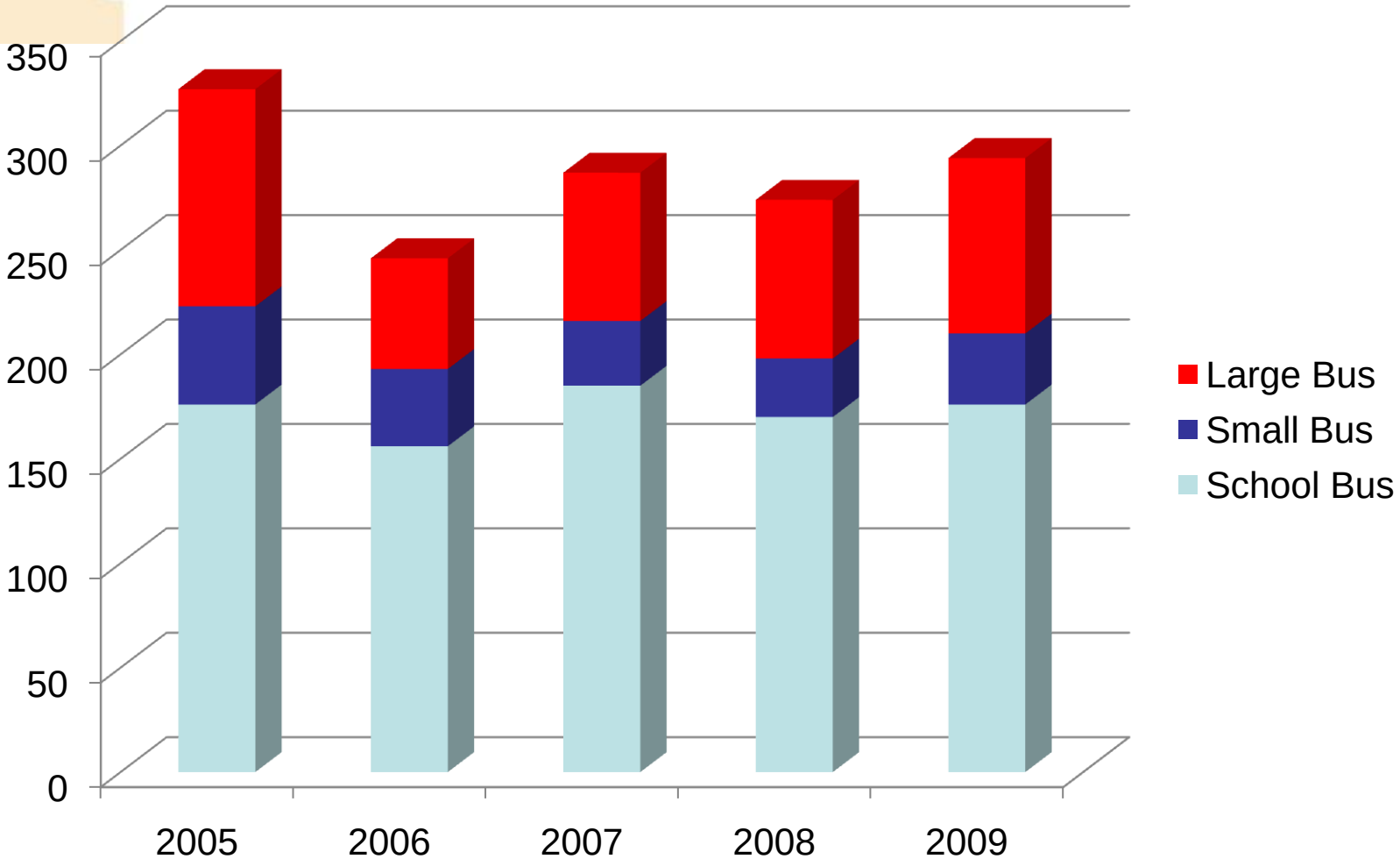
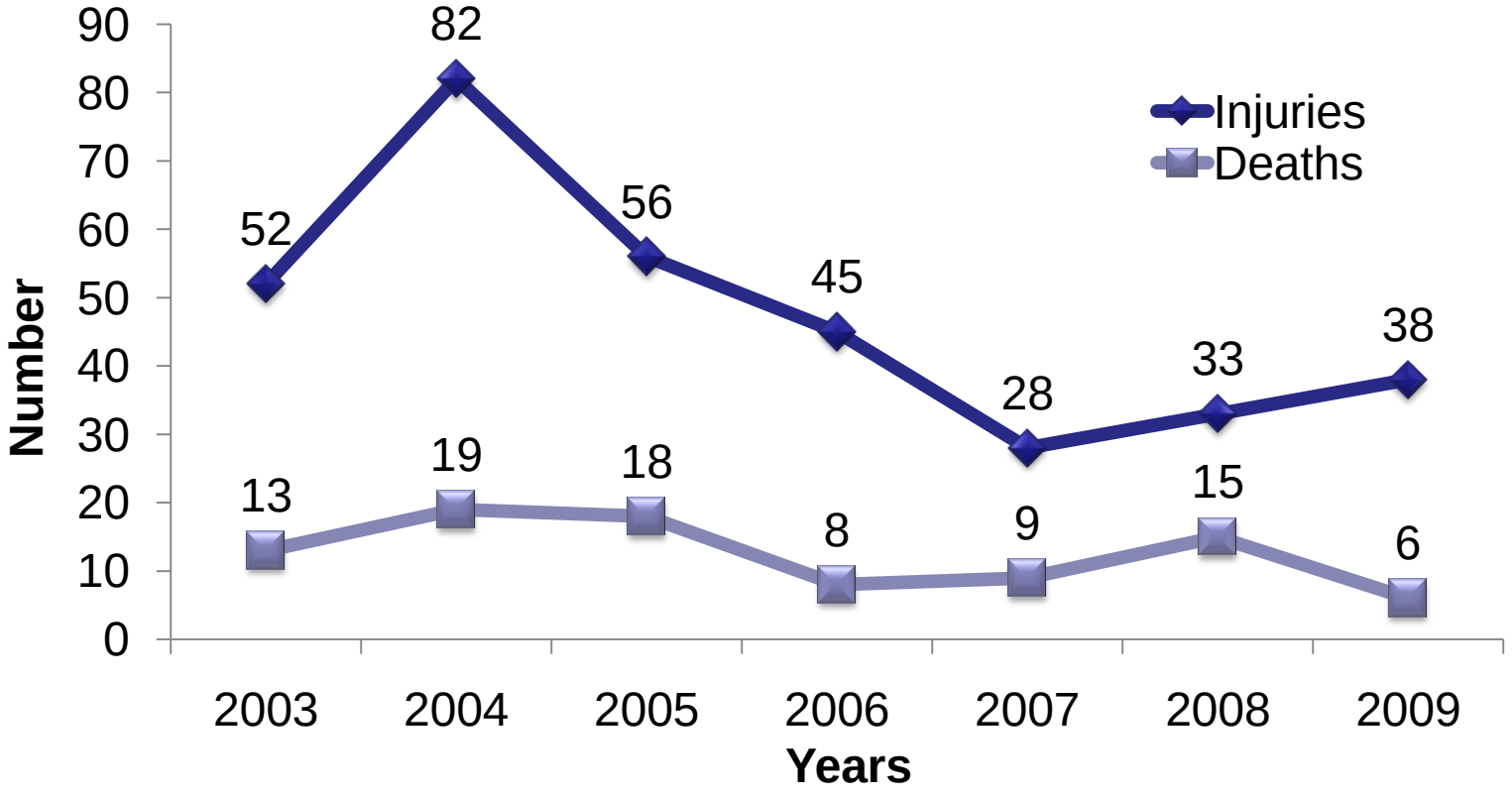
Bus Crashes

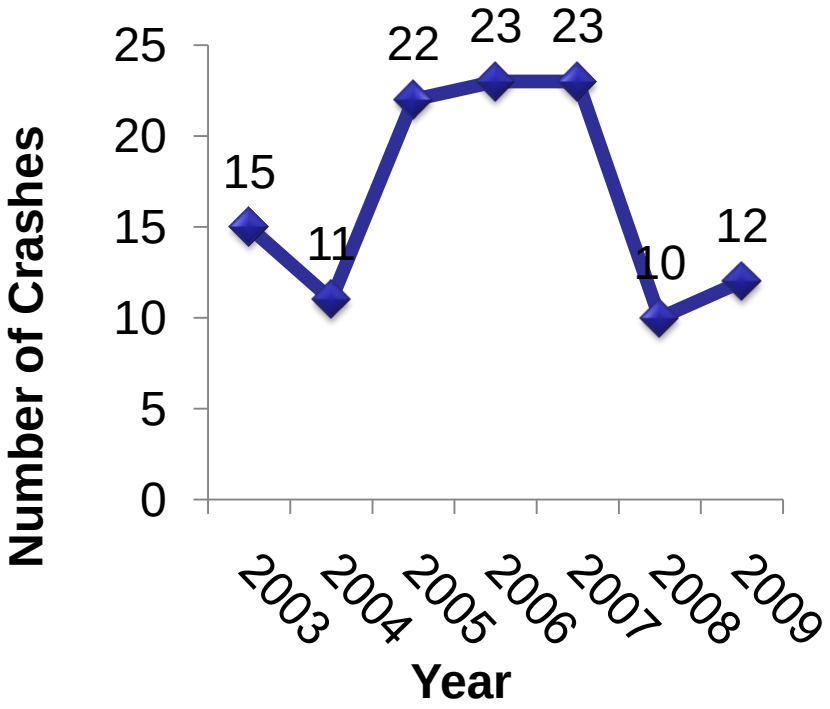

350
300
250
200
150
100
50
0
2005
2006
2007
2008
2009
Large Bus
Small Bus
School Bus

Train Crashes

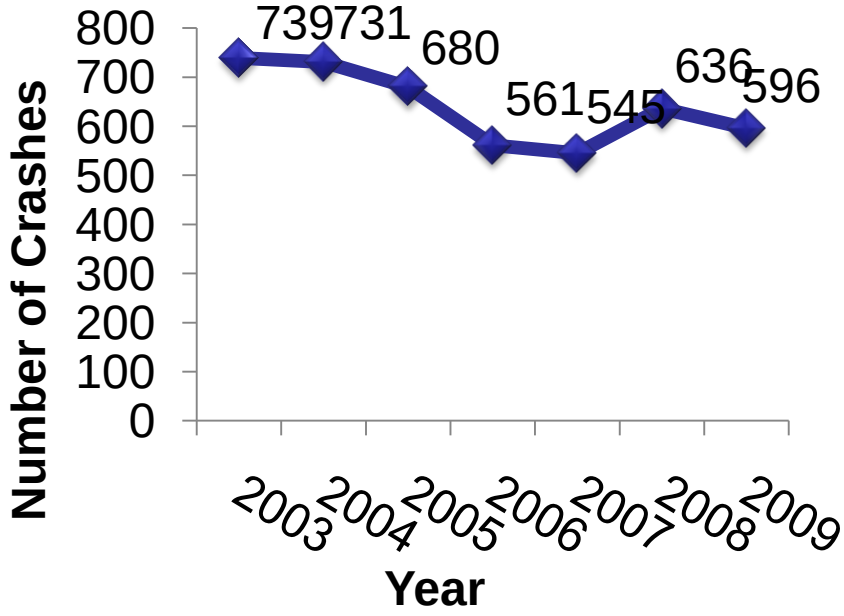


Bicycle Crashes

Fatalities



Injuries



Business Intelligence

- Objective
  - Provide simple measures
  - Provide measures that relate to specific efforts that are taken or can be taken
  - Provide timely information

Fatalities by Troop

Troop	2007	2008	2009	Diff 2008-2009	Diff 2007-2009	% 2008-2009	% 2007-2009
A (EBR)	116	108	109	1	-7	1%	-6%
B (NO)	41	44	28	-16	-13	-36%	-32%
C (Houma)	58	61	55	-6	-3	-10%	-5%
D (Lake Charles)	42	57	29	-28	-13	-49%	-31%
E (Alexandria)	88	73	83	10	-5	14%	-6%
F (Monroe)	60	53	46	-7	-14	-13%	-23%
G (Shreveport)	48	41	30	-11	-18	-27%	-38%
I (Lafayette)	99	73	66	-7	-33	-10%	-33%
L (Hammond)	67	76	71	-5	4	-7%	6%

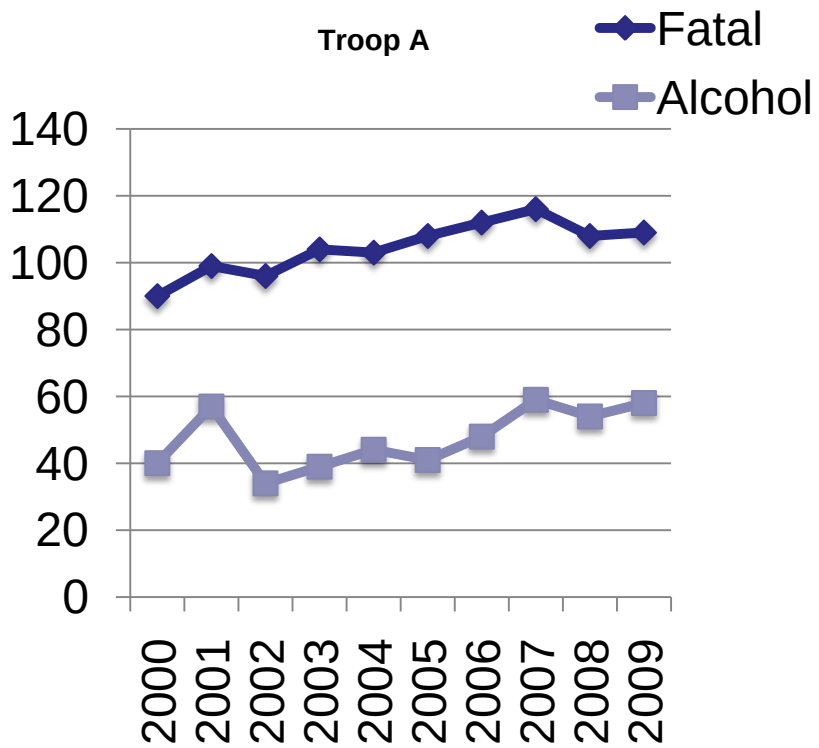
Fatalities by Troop

Including Local Roads

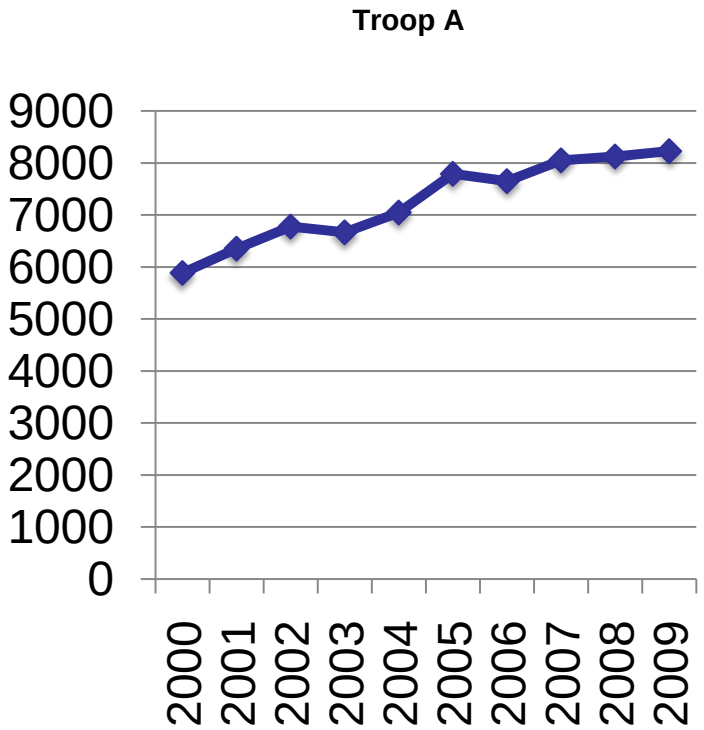
Troop	2007	2008	2009	Diff 2008-2009	Diff 2007-2009	% 2008-2009	% 2007-2009
A (EBR)	159	147	137	-10	-22	-7%	-14%
B (NO)	119	98	90	-8	-29	-8%	-24%
C (Houma)	54	66	51	-15	-3	-23%	-6%
D (Lake Charles)	71	81	55	-26	-16	-32%	-23%
E (Alexandria)	98	75	82	7	-16	9%	-16%
F (Monroe)	72	70	52	-18	-20	-26%	-28%
G (Shreveport)	93	80	69	-11	-24	-14%	-26%
I (Lafayette)	137	112	112	0	-25	0%	-18%
L (Hammond)	97	91	81	-10	-16	-11%	-16%

Troop A (BR)

Fatalities

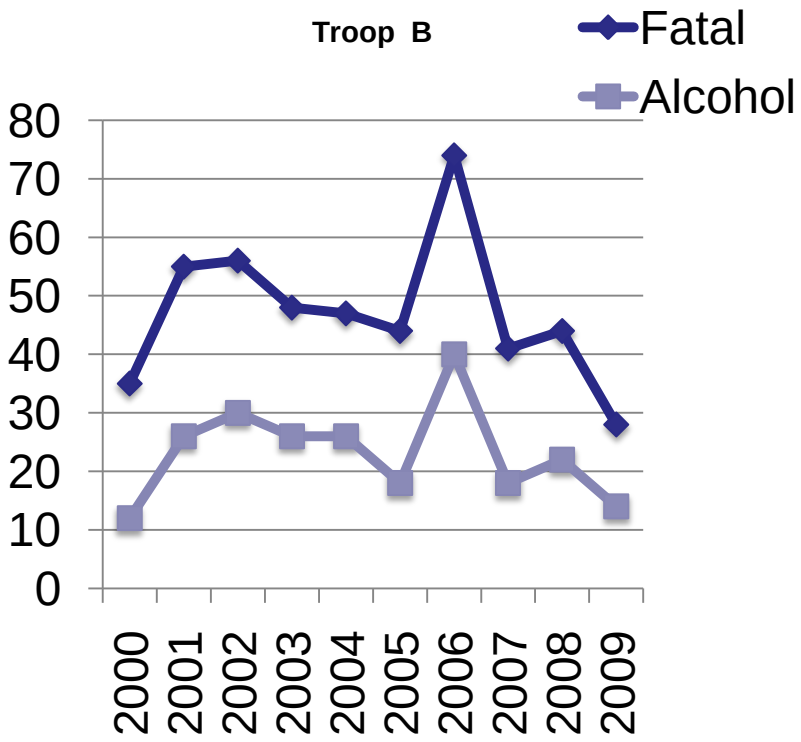


All Crashes

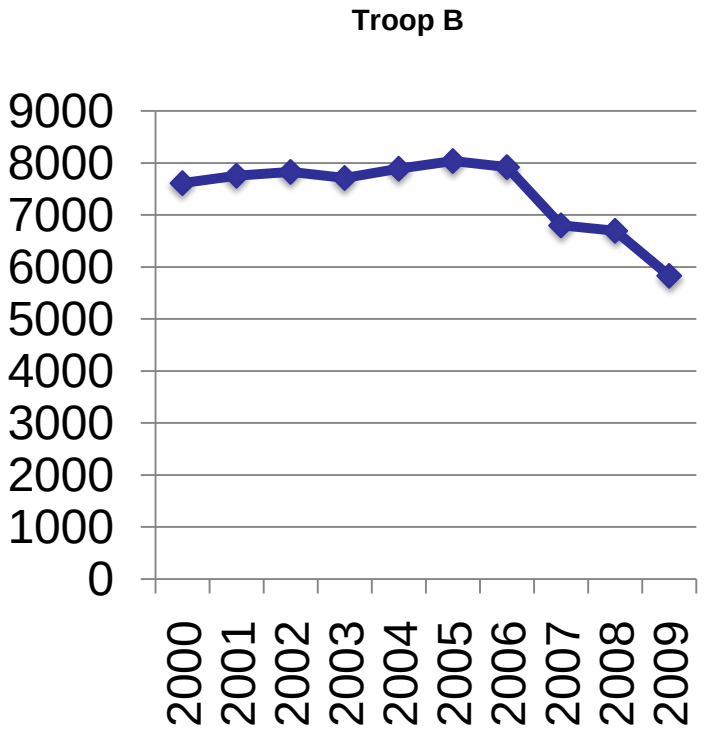


Troop B (New Orleans)

Fatalities

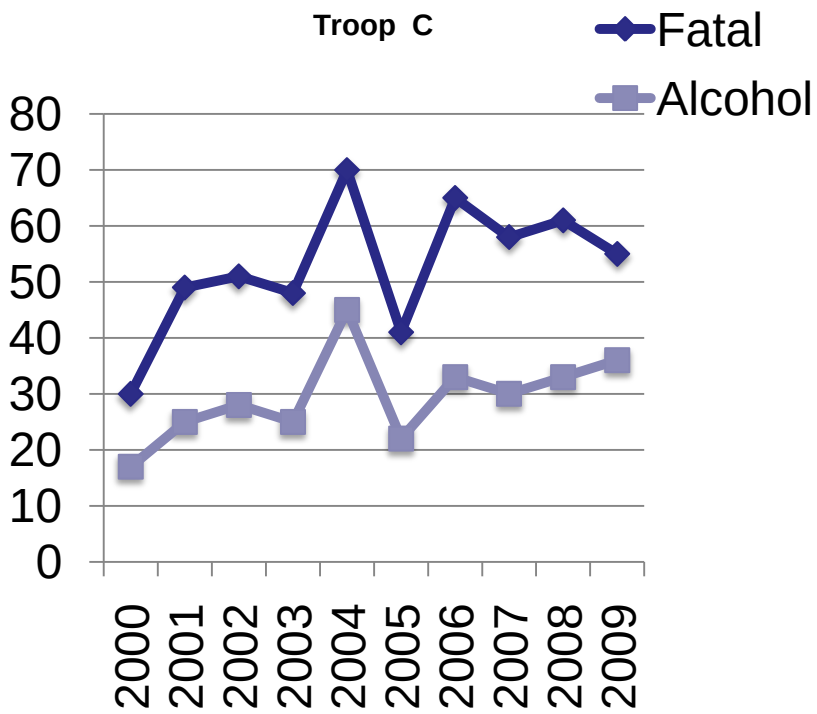


All Crashes

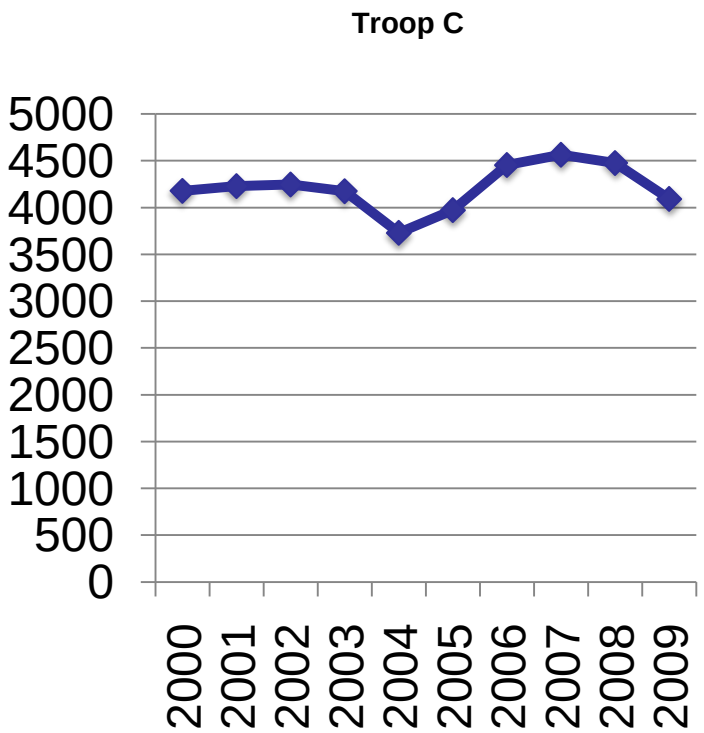


Troop C (Houma)

Fatalities

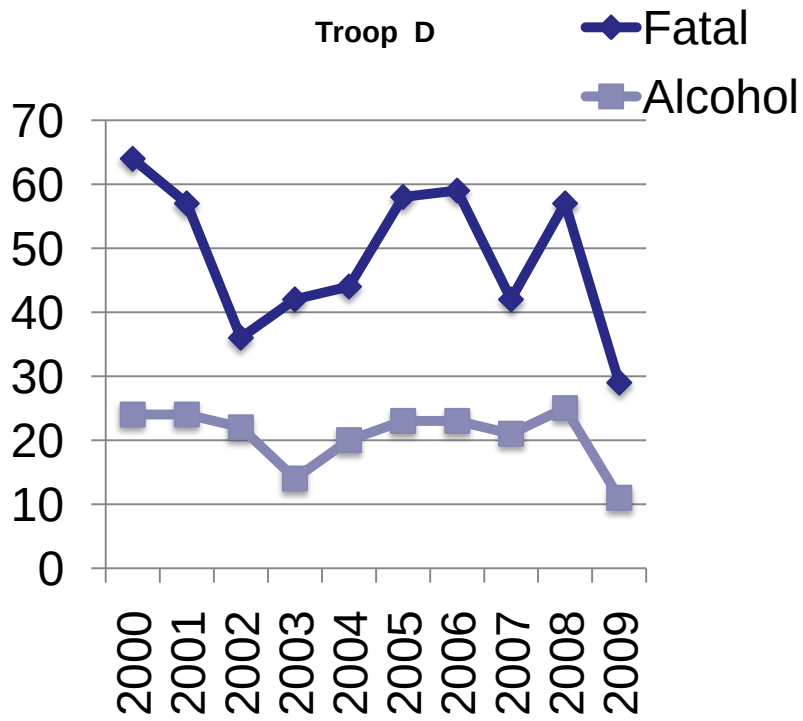


All Crashes

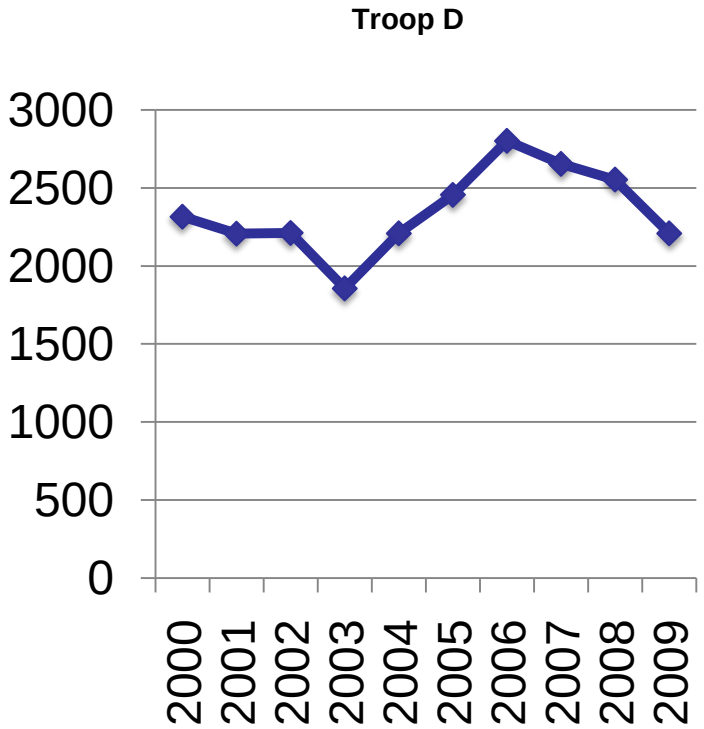


Troop D (Lake Charles)

Fatalities

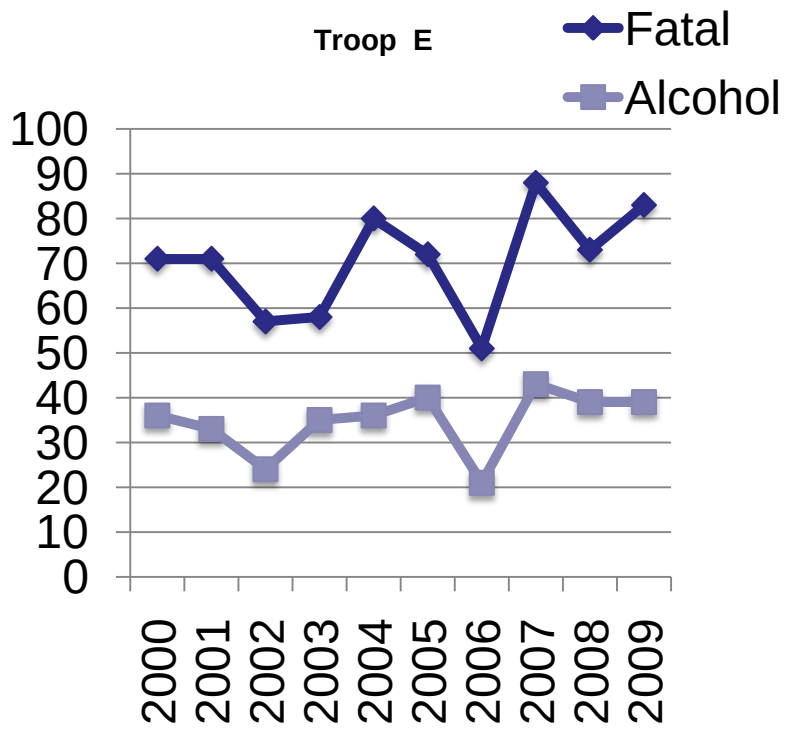


All Crashes

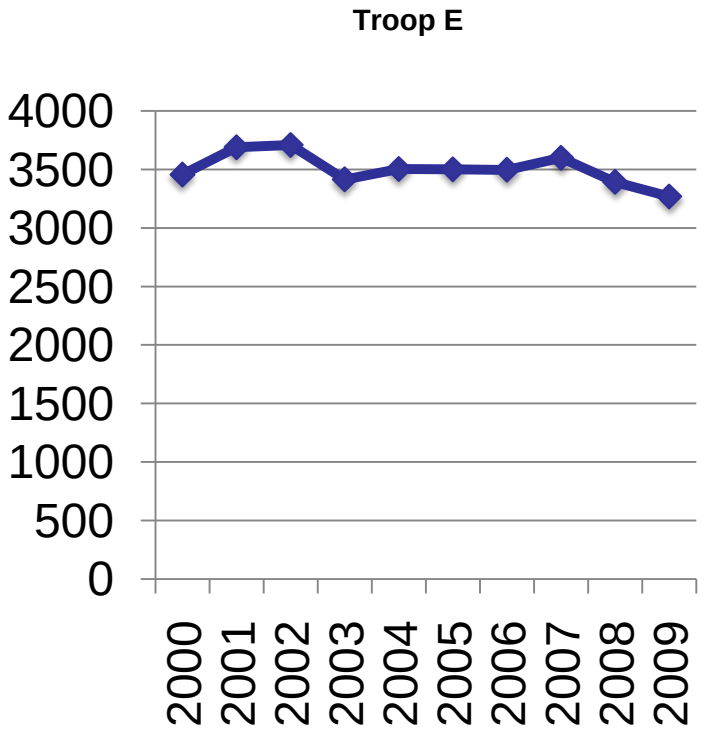


Troop E (Alexandria)

Fatalities

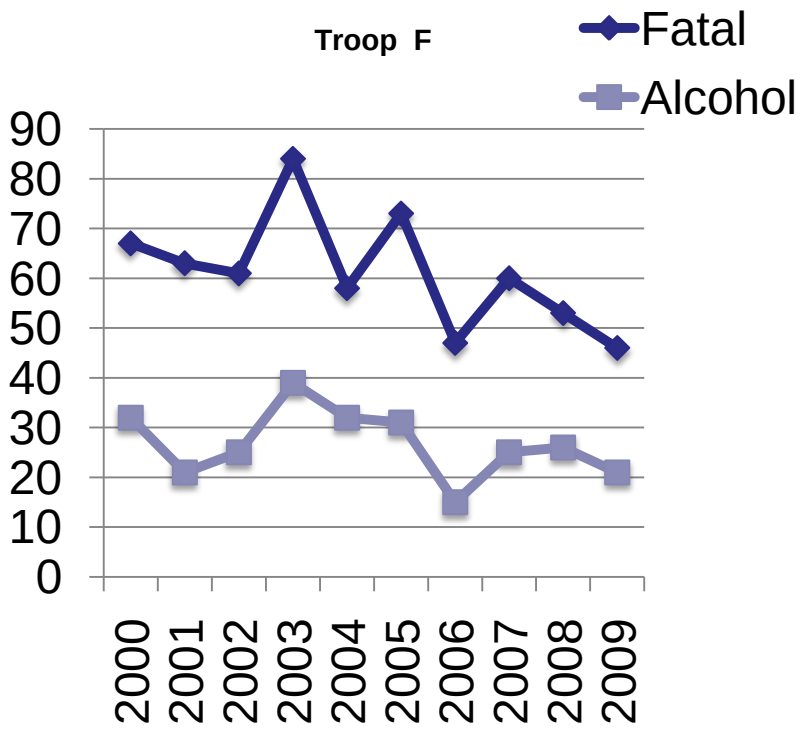


All Crashes

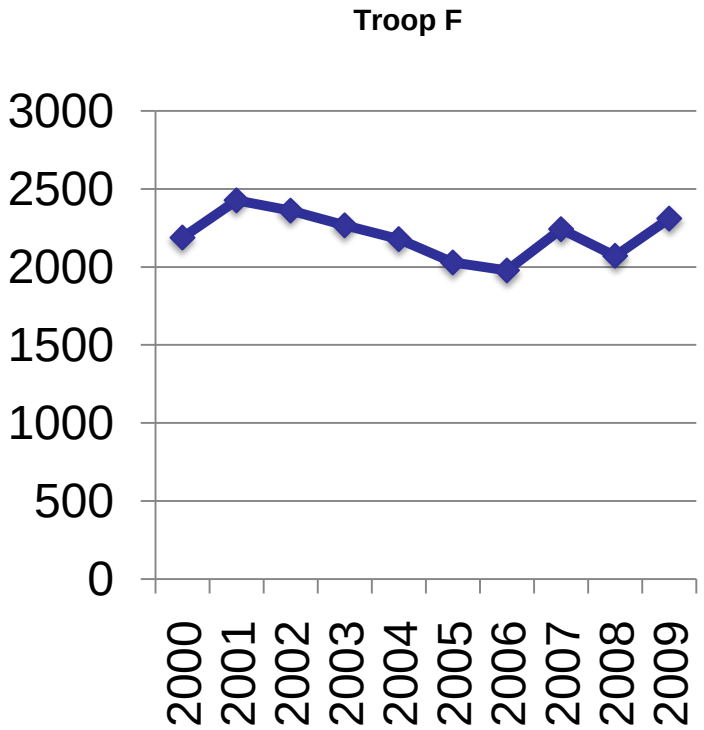


Troop F (Monroe)

Fatalities

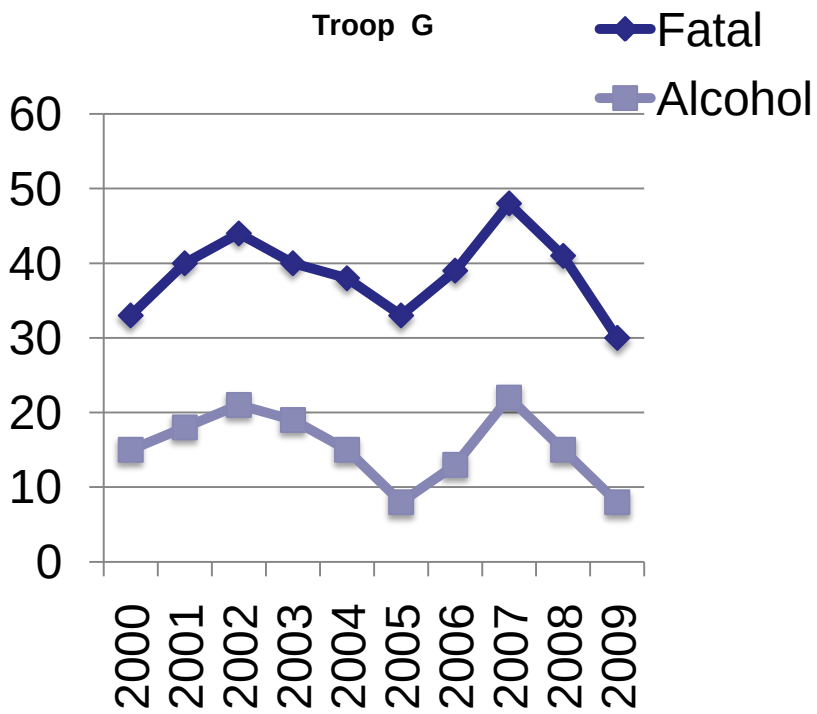


All Crashes



Troop G (Shreveport)

Fatalities



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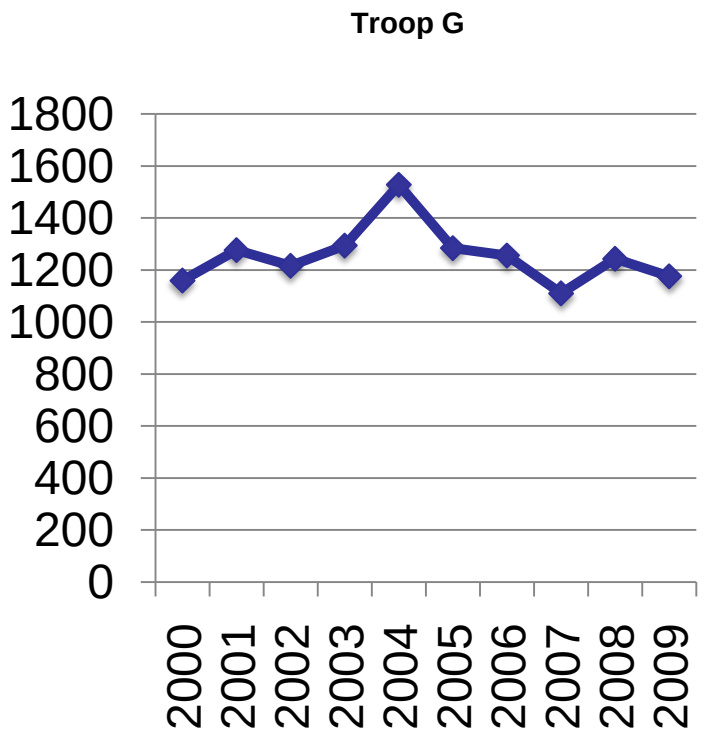
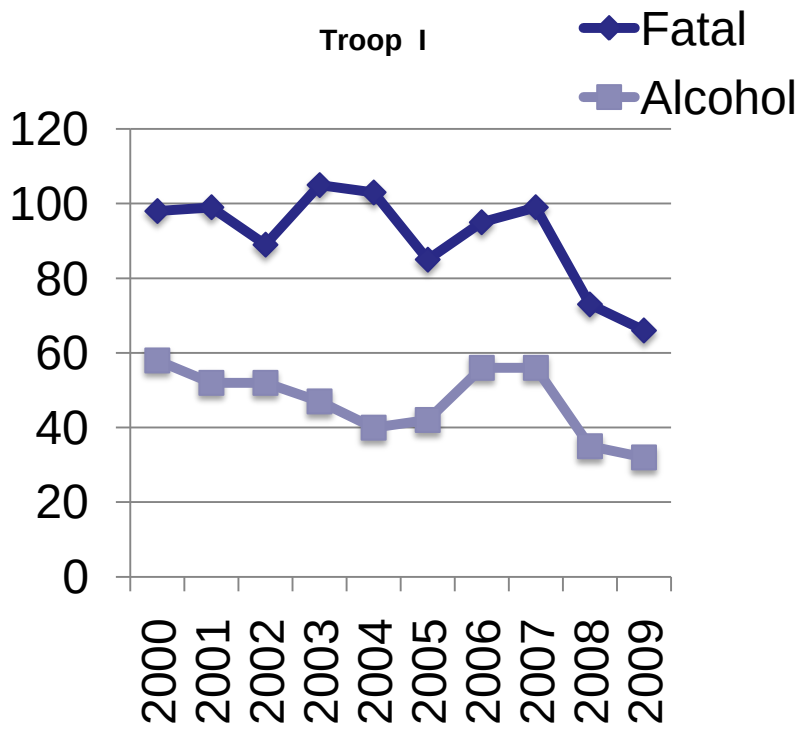
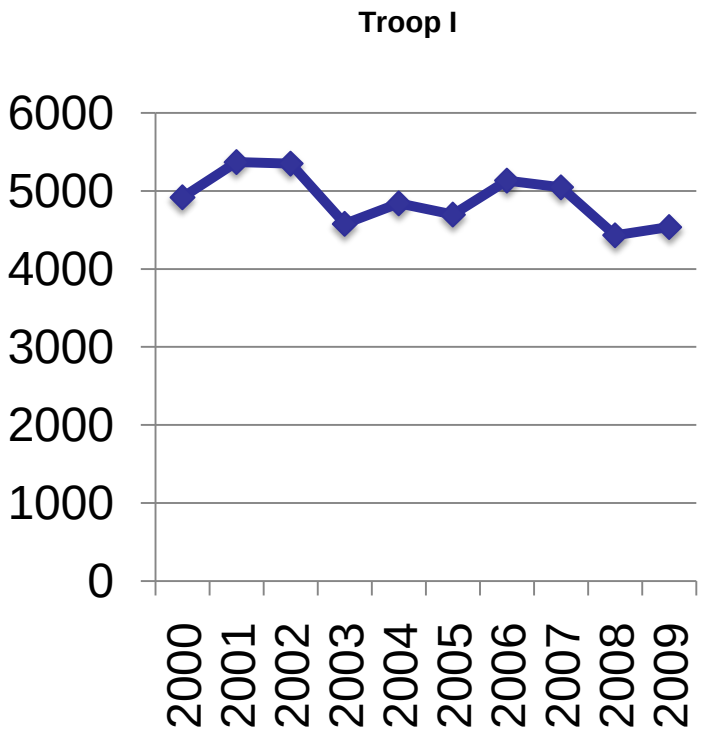


Troop I (Lafayette)

Fatalities

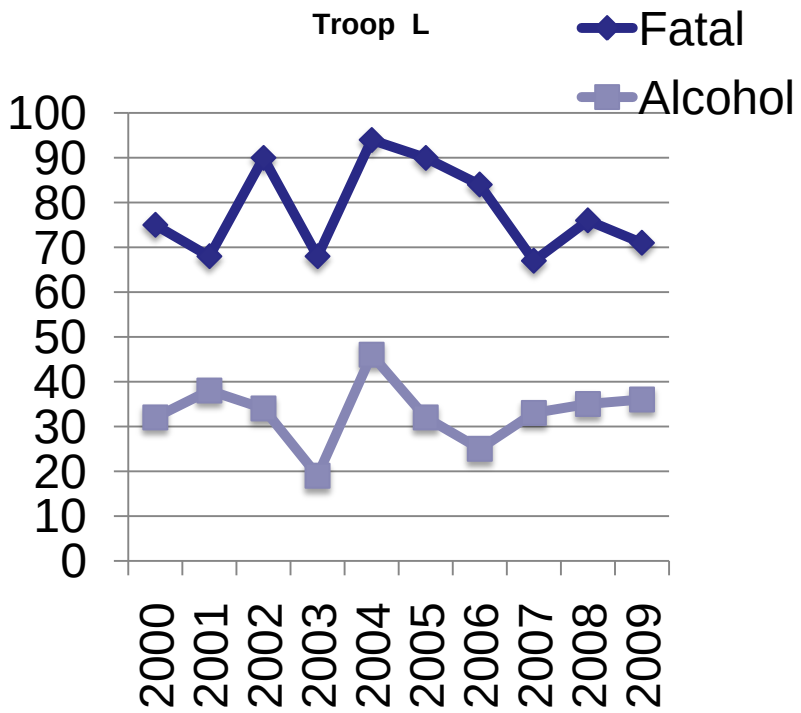


All Crashes

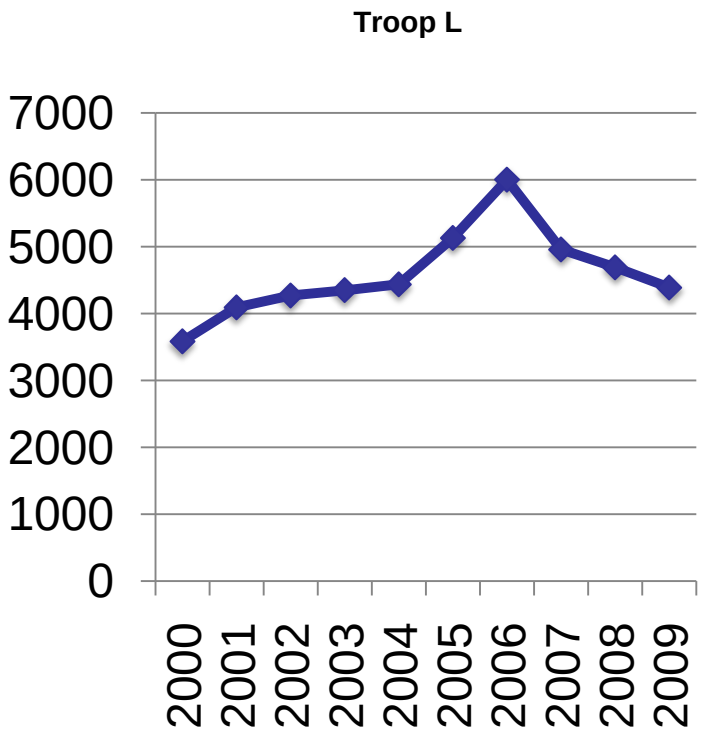


Troop L (Hammond)

Fatalities



All Crashes



Occupant Protection

- Seat Belts
- Motorcycle Helmets

OCCUPANT PROTECTION

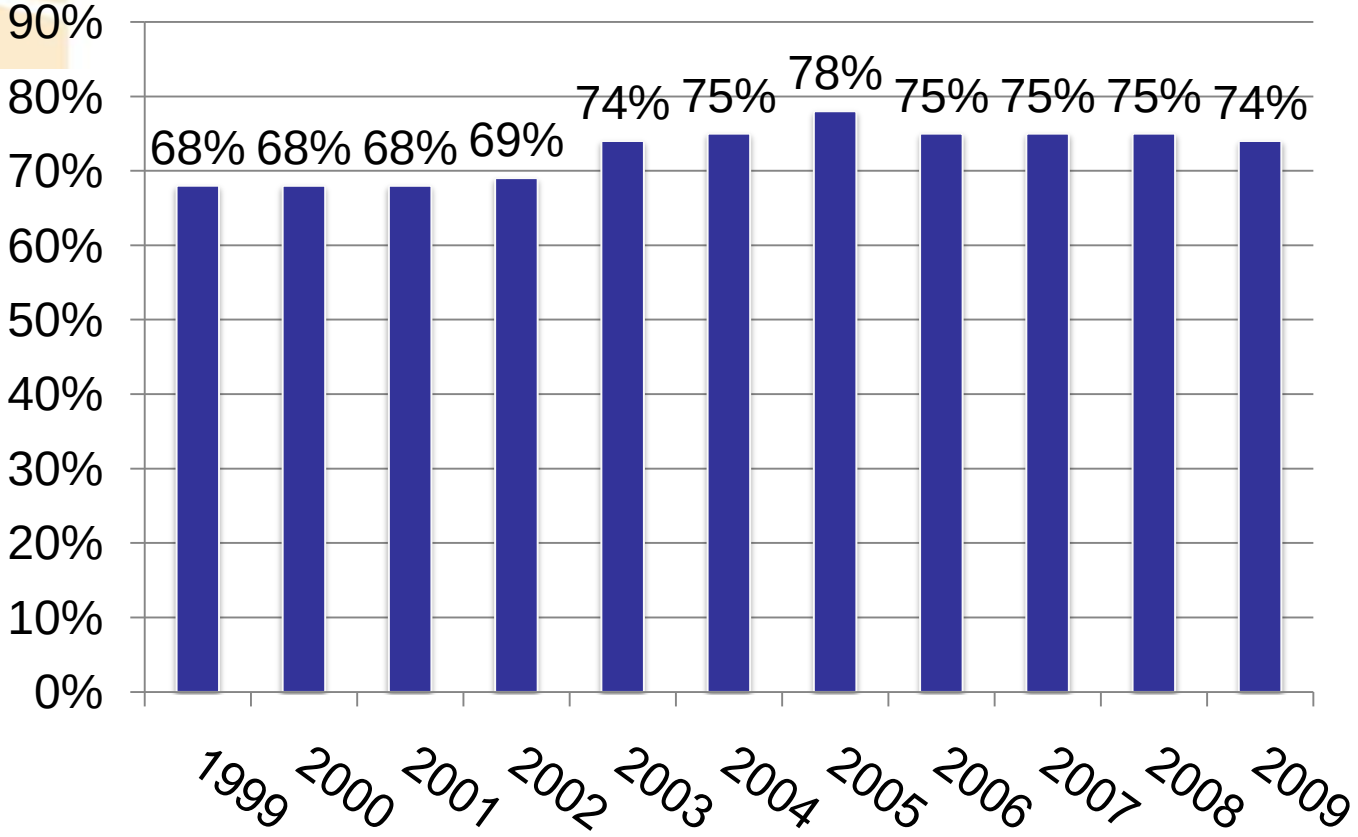
Seatbelt Use

- 75% of front-seat passengers were wearing a seat belt.
- Thus the 25% of occupants who are not wearing a seat belt make up 65% of fatalities.

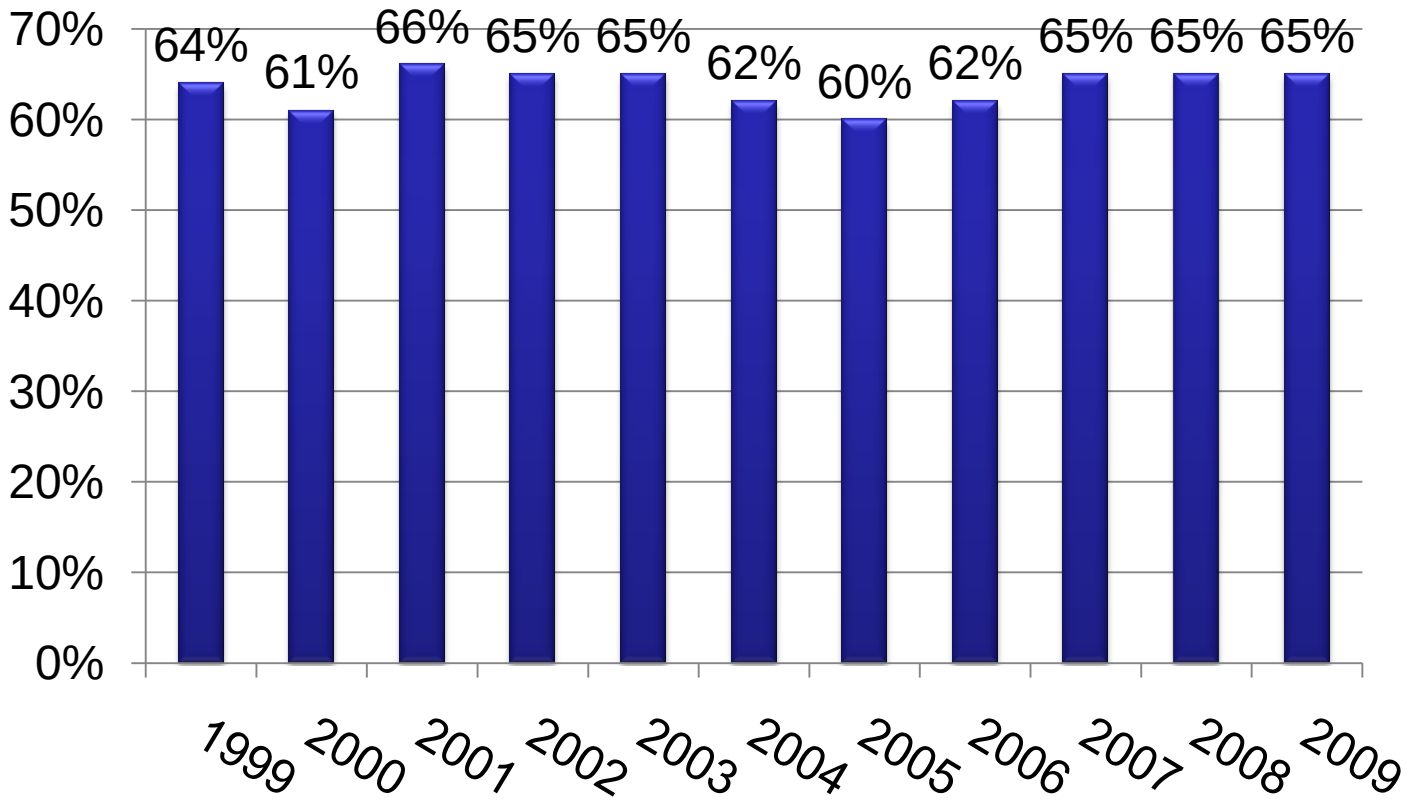
Killed Occupants

- 63% of drivers killed were reported not wearing a safety belt.
- 73% of passengers (5 years and older) killed *were not wearing* a safety belt.

While safety belt use has not changed much over the past six years…

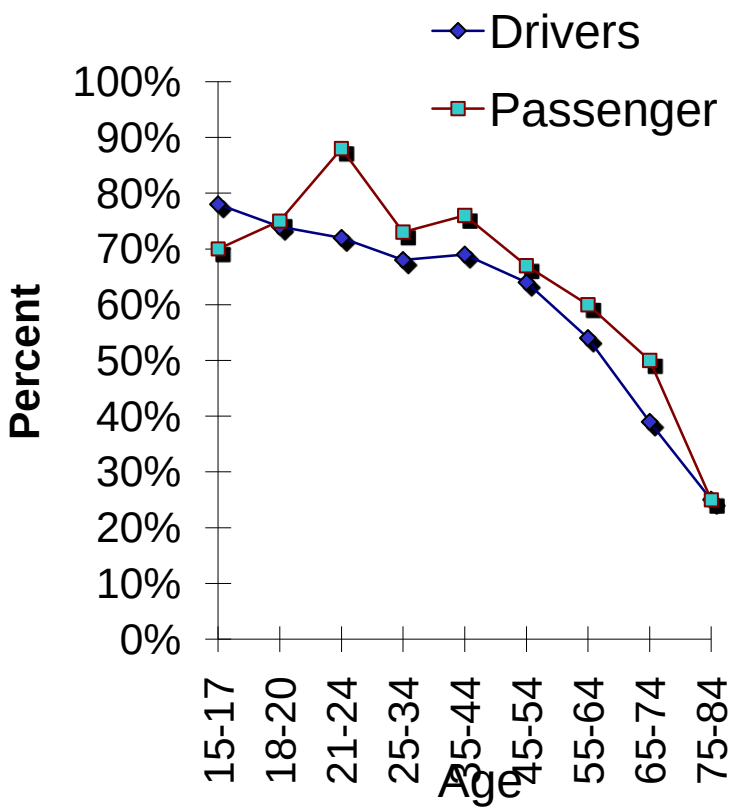


… the percent of occupants killed not wearing a safety belt is still over 60

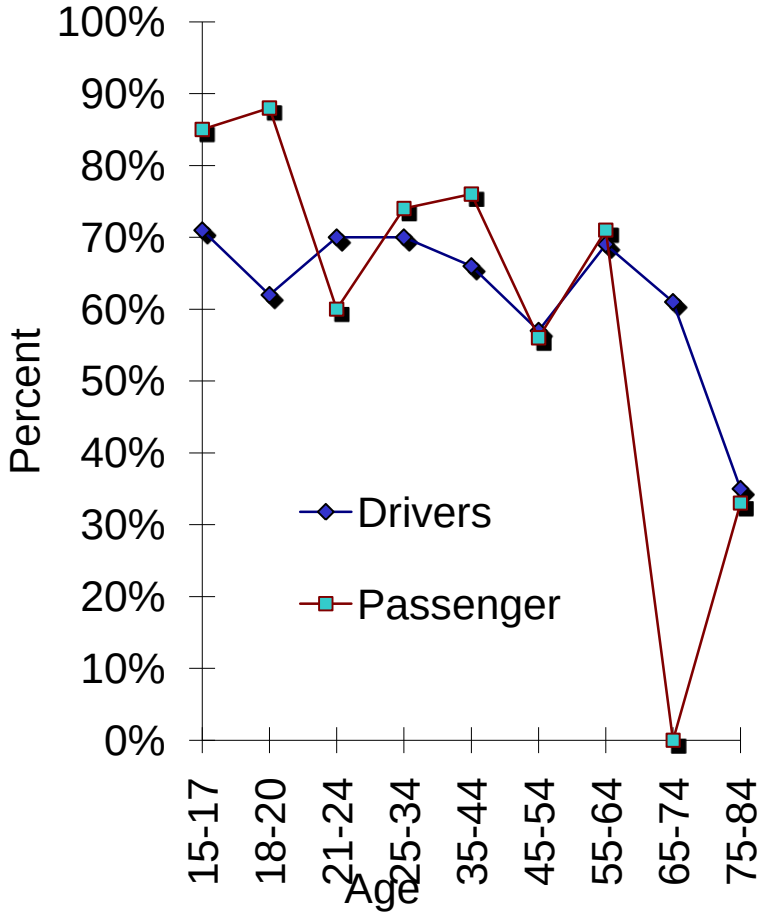


Percent of Fatalities Not Wearing Seat Belt/Harness by Age

2008

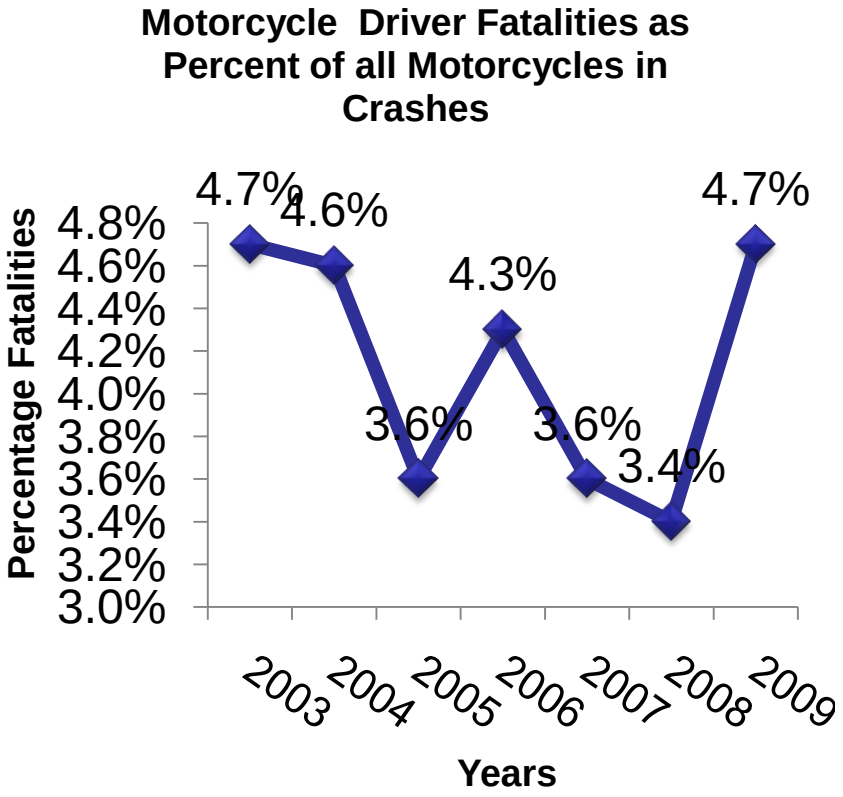


2009



Motorcycle Fatalities

- There were 104 motorcycle fatalities in 2009 which *increased by 28.4%* from 2008.
- There were 4.7 deaths of motorcycle drivers per 100 motorcycles in crashes for 2009 as compared to 3.4 in 2008.
- Alcohol-related fatalities increased by 48%.
- 41% of fatal motorcycle crashes in 2009 involved alcohol up from 36% in 2008



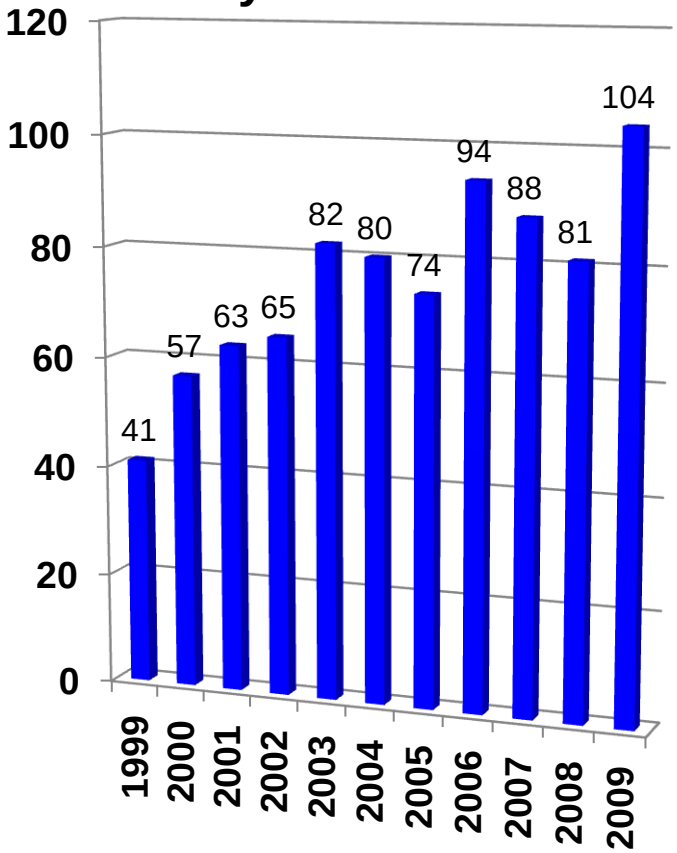
- Helmet use in motorcycle crashes was 89% in 2009 as compared to 88% in 2008.

- 84% of motorcycle riders killed were known to have worn a helmet.

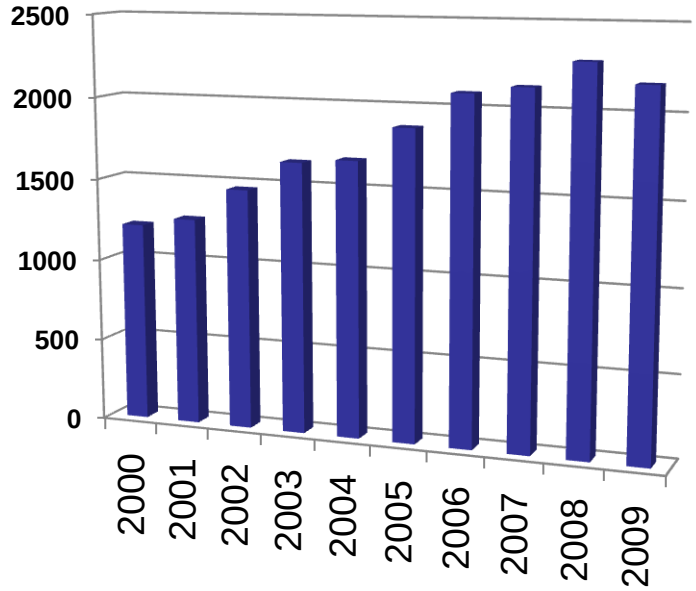
- Properly used helmets in fatal crashes was only 79%.

Number of Motorcycle Riders Killed in Crashes in Louisiana 1999-2009

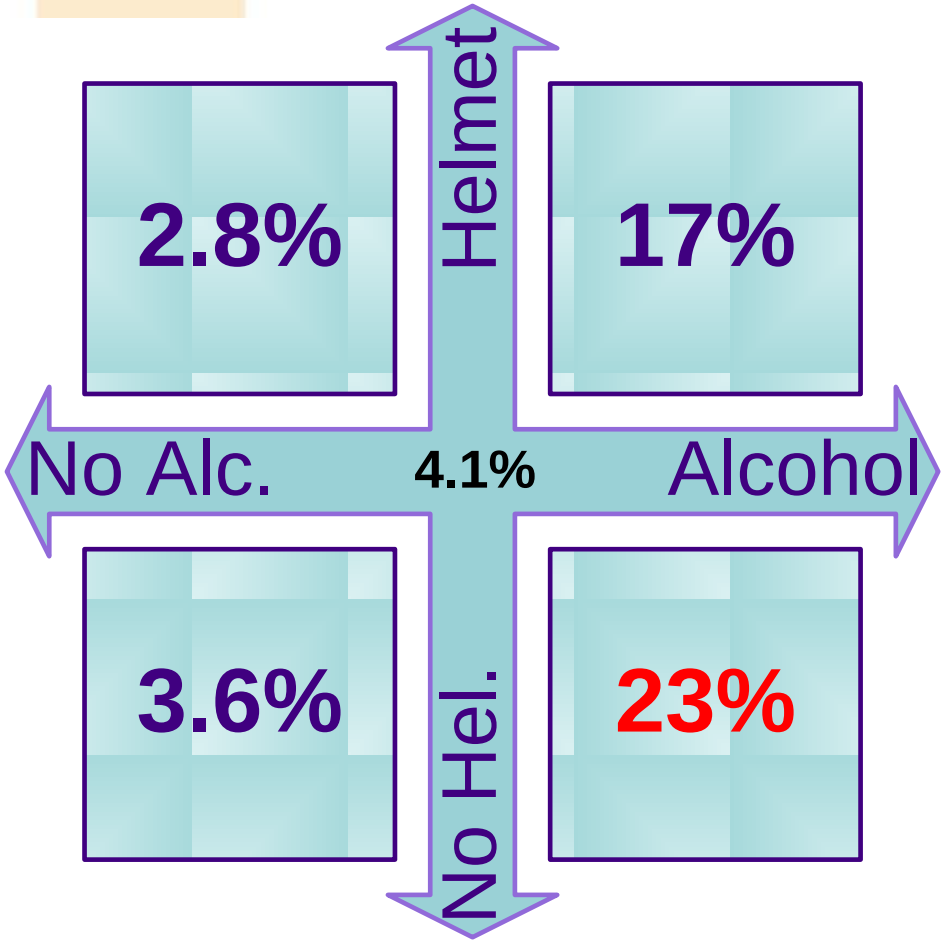
Motorcycle Fatalities



Number of Motorcycle in Crashes

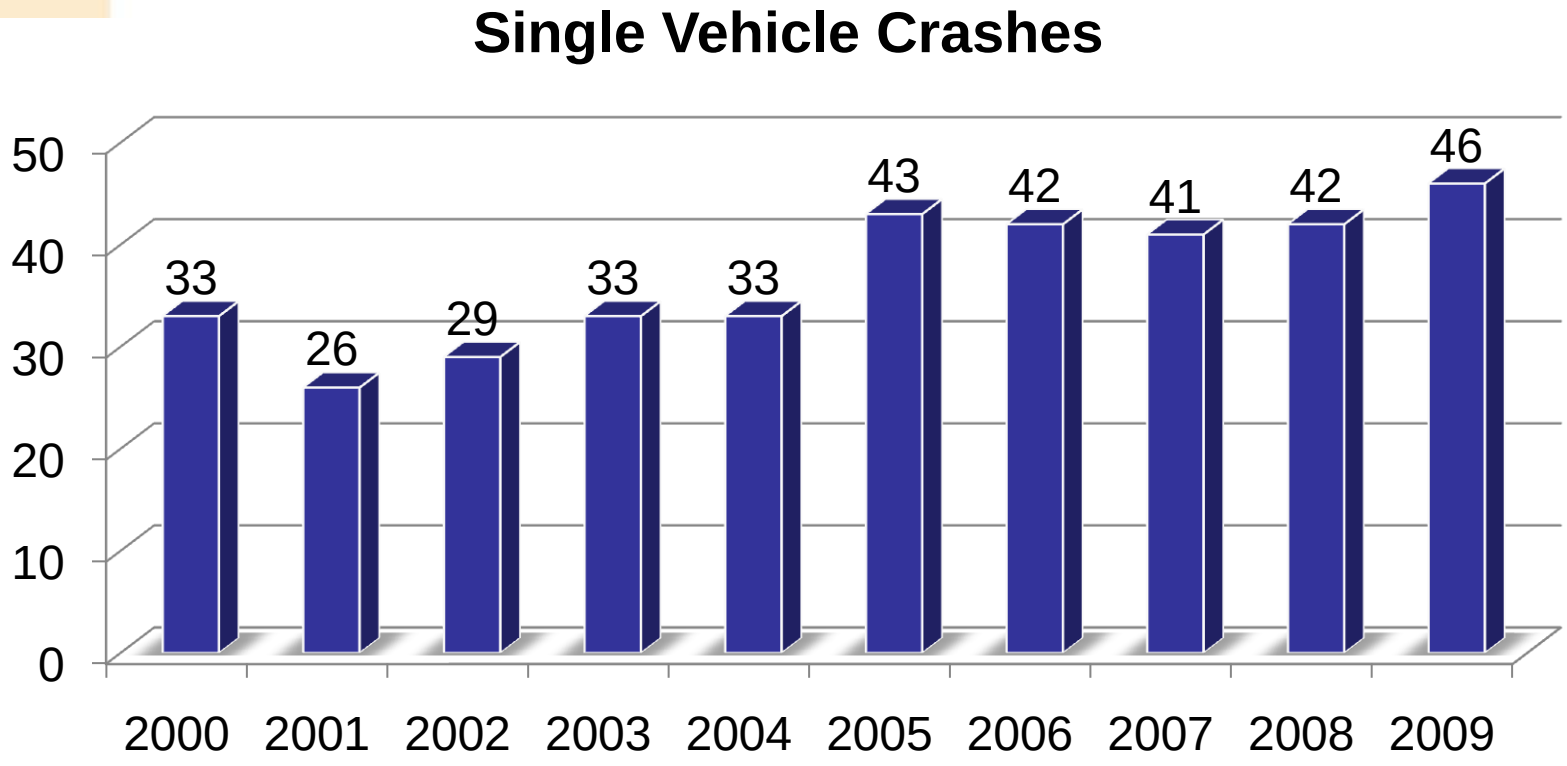


Percent of Fatalities by Alcohol and Helmet Use



- Alcohol is a much larger contributing factor to the death rate than wearing a helmet (20% versus 3.0%).

Single Vehicle Fatal Run-off-Road Crashes



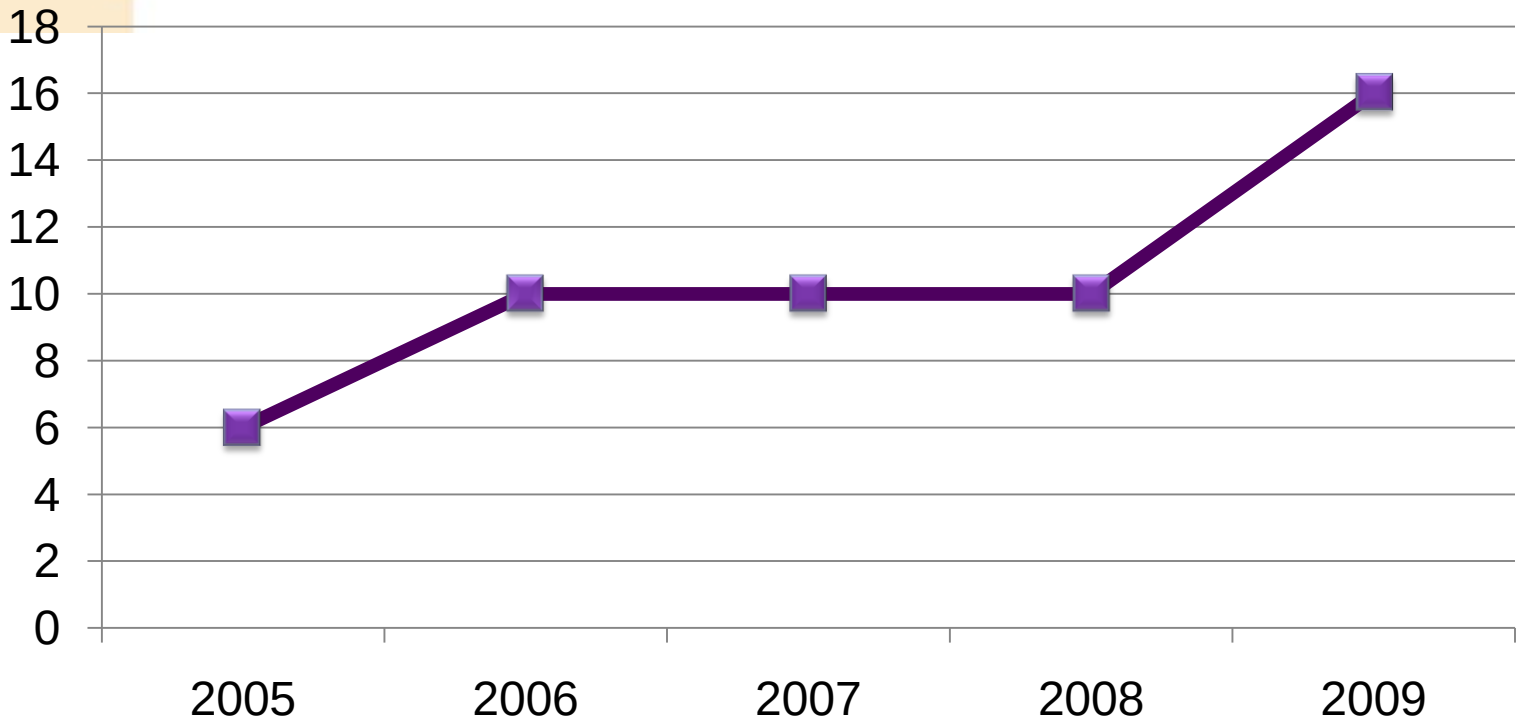
Aggressive Driving

- **Exceeding Stated Speed**
- **Exceeding Save Speed**
- **Failure to Yield**
- **Following too closely**
- **Driving left of center**
- **Cutting in & Improper Passing**
- **Disregard Traffic control**
- **Careless Operation**

Percent of Drivers in Fatal and Injury Crashes for Aggressive Driving

Type	Fatal	Injury	All	% Fatal	% Injury
Exceed Stated Speed	35	233	553	5%	1%
Exceed Safe Speed	18	400	1105	3%	1%
Failure to Yield	59	8868	26939	8%	20%
Following too Closely	2	5921	22300	0%	13%
Driving left of center	63	562	1797	9%	1%
Cutting in/Improper Passing	6	612	3058	1%	1%
Disregard Traffic Control	25	2413	5813	3%	5%
Carless Operation	252	15285	46280	35%	34%

Cell Phone use and Texting and Driving



Cost of Crashes

Type	2008	2009	% Difference
Lack of Seat Belt	$1.28 Billion	$1.1 Billion	-13%
Alcohol	$1.3 Billion	$1.1 Billion	-13%
Total	$6.34 Billion	$5.7 Billion	-10%